How you can use exchange-traded funds

Plain Talk In Focus™

Some investors think of indexing only in terms of index mutual funds. Index mutual funds have been around for many years and continue to be used by millions of individual investors and institutions. However, there's now a different way to index—the exchange-traded fund (or ETF)—that harnesses the strengths of indexing and offers additional features. What are ETFs? How do they work? What are their benefits and risks? In this brochure, you'll find answers to some common questions about ETFs and learn more about the similarities and differences between ETFs and conventional mutual funds.

ETFs: Another way to index

What are ETFs?

ETFs combine the advantages of mutual funds with the trading flexibility and continual pricing of individual stocks.

Like stocks, ETFs are traded on a stock exchange and can be bought and sold through a brokerage account any time during exchange hours at intraday prices, rather than end-of-day prices. Investors may also use other stock-trading techniques, such as limit orders, buying on margin (with borrowed money), and selling short (selling borrowed shares).

Like mutual funds, most ETFs are registered investment companies that offer investors a proportionate share in a professionally managed portfolio. Almost all ETFs that exist today use an indexing approach that seeks to track specific market indexes, so they offer the traditional advantages of indexing: very low operating costs, the opportunity to closely track their benchmark indexes, the potential for high tax efficiency, and consistent investment strategies.

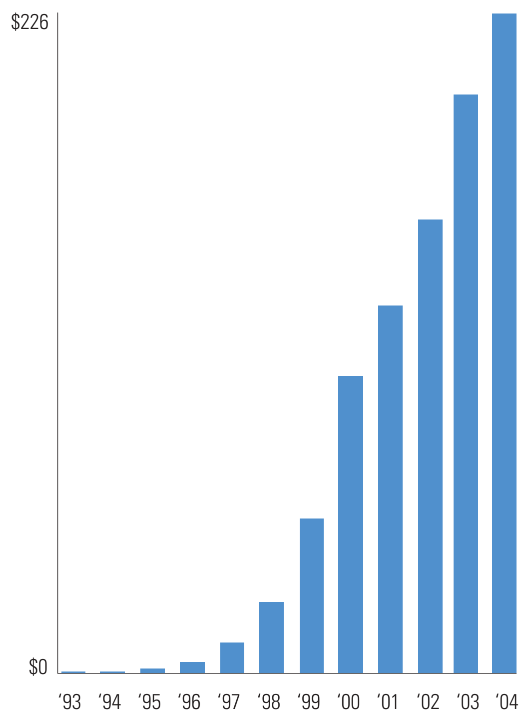
How do they work?

Shares of ETFs are created when a securities firm deposits into a fund a large basket of stocks that generally matches the holdings of the index; the firm receives a block of ETF shares in return. The securities firm then offers these shares to investors on a stock exchange. When investors buy and sell these shares among themselves on the exchange, the fund's portfolio is unaffected. Thus, the fund is insulated from the transaction costs and any tax consequences of trading individual securities.

As with a mutual fund, the investment advisor of an ETF monitors the portfolio holdings and ensures that the operations of the fund are in line with its stated objective. Each share of an ETF entitles the holder to a proportionate share of any income and any realized gains or losses the portfolio produces.

The Growth of ETFs: 1993–2004

U.S.-domiciled ETF assets in $ billions



Source: Investment Company Institute.

How do ETFs differ from mutual funds?

There are a number of differences between ETFs and mutual funds.

A different way to buy and sell shares. You must trade ETF shares through a brokerage firm. You can buy or sell the shares at the current market price any time the stock exchange is open. In contrast, shares of a conventional no-load mutual fund can be purchased from and redeemed directly with the fund, and the price will be the shares' net asset value (NAV) determined at the next market close.

A different method of price calculation. The market price of an ETF is primarily based on its net asset value (which in turn depends on the prices of the securities the ETF holds). But an ETF's share price changes throughout the day, and at any moment it may be above (a *premium*) or below (a *discount*) the NAV. This difference is typically quite small, but it can become significant in times of market volatility. With virtually all conventional mutual funds, the share price is calculated only once a day, at the market close.

Trading flexibility. ETF investors can employ trading methods not available to mutual fund investors. These methods—the same as those available to stock investors—aim to provide greater control over the pricing and timing of ETF transactions. For example, you can place *limit* or *stop* orders that specify the price at which your broker is to buy or sell shares. These types of transactions can help protect you from trading a security at a lower or higher price than you want. However, execution of your trade is not guaranteed, because market prices may overtake your specified price before the order is filled.

You can also *sell short* by selling ETF shares that you have borrowed from your broker. If prices drop after you sell the shares, you can repurchase them at a lower price, return them to your broker, and keep the difference as a profit. If prices go up, though, you will lose money.

You can also trade ETFs using a *margin* account, whereby you borrow money from your broker to buy shares. You must post a specified percentage of the purchase price with the broker as collateral.

Although the trading flexibility of ETFs enhances their appeal, the strategies described here can be difficult to execute successfully and may subject you to greater risks than anticipated.

A Comparison of ETFs and Index Mutual Funds

	Exchange-traded funds	Index mutual funds
Buying and selling shares	Through a brokerage firm	Directly from the fund company or through a broker
Share price	Market prices fluctuate throughout the trading day	Determined after financial markets close
Frequency of share pricing	Throughout the day while financial markets are open	Once per day after financial markets close
Average annual expense ratio	0.46%*	0.97%**
Transaction costs	Commission and bid-ask spread on each direct purchase and sale	None for no-load funds when purchased or redeemed directly from the fund
Automatic dividend reinvestment	Availability depends on the broker, who may charge for the service	Generally available at no charge
Client services	Provided by the broker	Provided by the fund sponsor or a broker
Average cost statement	Availability depends on the broker	Generally available from the fund sponsor

*For all equity ETFs. Source: Morgan Stanley Equity Research, as of 12/31/2004.
**For all index equity funds. Source: Lipper Inc., as of 12/31/2004.

Potentially lower operating expenses. ETFs often, though not always, feature expense ratios even lower than those of comparable mutual funds. That's because ETF investors place transactions through brokerage firms, so the underlying funds do not incur administrative costs for items such as telephone call centers, correspondence, postage, and account recordkeeping.

ETF expense ratios vary widely. Although some offer expense ratios as low as 0.07%, that is not the whole story. With ETFs, you need to consider the "total costs," which include not only the expense ratio but also the brokerage commissions and any other costs you incur to buy and sell shares.

Potentially higher transaction costs. The commissions you'll pay to buy or sell ETFs can vary widely among firms, so you should be careful to place trades with brokers offering competitive fees. You also incur the costs of *bid-ask spreads*—the difference between what a prospective buyer will pay for a security and the somewhat higher price at which a seller will sell the same security. Mutual funds are not subject to the bid-ask spread.

Unless your investment is quite large, the costs associated with buying and selling ETFs may outweigh the potential savings from their lower expense ratios. If you intend to simply buy and hold shares for the long term, ETFs may be a lower-cost investment than index mutual funds. However, you should weigh your need for trading flexibility and your intended holding period against the added transaction and brokerage costs of ETFs in deciding which type of security to purchase. The chart on page 7 depicts the impact of costs on ETF investments of varying sizes.

Tax efficiency. ETFs can be extremely tax-efficient investments when you follow a buy-and-hold strategy. Nearly all ETFs take advantage of the low-turnover indexing approach, so they typically should pass on a small amount of capital gains to shareholders. However, certain types of ETFs, such as those that invest in small-capitalization stocks or in specific market sectors, may experience higher turnover and may possibly be less tax-efficient than broader-market ETFs.

Limited dividend reinvestment options. Shareholders of ETFs and conventional funds may receive distributions of income and capital gains at the same time. A conventional-fund shareholder can elect to reinvest these distributions in additional shares of the fund at little or no charge. An ETF holder, on the other hand, may not be able to reinvest these distributions directly in additional shares of the ETFs unless the broker provides a reinvestment service. Even if the broker does offer this service, there may be a fee for it.

How can I use ETFs in my portfolio?

Available ETFs cover virtually all market-capitalization segments of the U.S.stock market and a sizable share of the U.S. bond market. A growing number of international ETFs focus on various geographic regions or single countries. Some ETFs also invest in specific sectors of the U.S. economy, such as technology, financial services, health care, and utilities. Below are some of the ways that you may wish to use ETFs in your investment portfolio.

Core holdings. You can invest in a diversified, broad-market ETF as the core holding of your portfolio or use a combination of ETFs that meets your goals.

Short-term cash management. You can use ETFs as a short-term strategy to maintain exposure to the stock market while your portfolio is in a transition phase or if you have an influx of cash waiting to be moved into long-term investments.

Tax-loss harvesting. You can sell an underperforming stock and claim a tax loss, but maintain exposure to the stock's market segment or sector by buying an ETF.

Hedging. Overexposure to a particular market segment or sector can throw an otherwise well-diversified portfolio out of alignment. ETFs are useful tools to short a sector, industry, market-cap segment, or even an established benchmark, to realign a portfolio with its asset allocation model.

Selling short. As mentioned previously, you can sell shares of ETFs that you've borrowed from your broker, and, if the price falls, buy the shares back at a lower price to cover the loan while making a profit.

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Who should consider ETFs?

ETFs may be an appropriate investment option for:

- **Long-term, buy-and-hold investors.** Because buy-and-hold investors don't incur frequent-trading costs, they can reap the benefit of the lower expense ratios characteristic of ETFs.
- **Investors with a sizable lump-sum amount to invest.** A single large investment spreads the trading commissions across the entire investment, reducing the impact of the fees. In the long term, the lower expense ratios of ETFs can make up for the initial transaction cost.
- **Investors looking for the trading flexibility of stocks.** ETFs can be bought or sold from a broker at any time during the trading day, allowing investors to use stock trading techniques such as limit orders, buying on margin, and selling short.

Who should *not* invest in ETFs?

A traditional index mutual fund is probably a more suitable investment choice for:

- **Investors who rebalance frequently.** When you rebalance, you have to go through a broker to buy or sell ETF holdings and incur commissions and bid-ask spreads. These fees will reduce the cost benefit of your ETF investment.
- **Investors engaging in regular transactions.** If you practice dollar-cost averaging,* make direct deposits or periodic withdrawals, buying and selling ETFs will generate brokerage commissions to complete the transactions. These fees will erode the cost benefit of your investment.
- **Investors with a small amount to invest.** There are typically no trading commissions when you purchase traditional index funds directly from the fund sponsor. Because you buy ETFs through a broker, you will typically incur commissions and bid-ask spreads. It will be difficult for the lower expense ratios of ETFs to make up for the initial transaction costs of small investments—even in the long term.

*Dollar-cost averaging does not guarantee that your investments will make a profit, nor does it protect you against losses when stock or bond prices are falling. You should also consider whether you would be willing to continue investing during a long downturn in the market since dollar-cost averaging involves continuous investment in securities regardless of fluctuating prices levels.

Larger purchase amounts reduce total costs of ETFs

The chart below demonstrates the lower-cost benefits of ETFs for large investment amounts. It also shows why ETFs are not a low-cost strategy for smaller investments or systematic investments or withdrawals. Over long time periods, the low expense ratios of ETFs will compensate investors for the trading costs associated with buying and selling them.

Hypothetical Purchase of a Broad-Market ETF*

Purchase amount	$1,000	$25,000	$50,000
Share price	$100	$100	$100
Number of shares purchased	10	250	500
Commission (flat rate)**	$25	$25	$25
Buy-side spread ($0.05 per share)†	$0.50	$12.50	$25
Total cost	$25.50	$37.50	$50
Total cost (as % of purchase amount)	255 basis points (2.55%)	15 basis points (0.15%)	10 basis points (0.10%)

*Figures are a proxy for most broad-market ETF transactions. Selling the investment will increase total transaction costs.

**Commission fees will vary.

†Total spread is $0.10 per share ($0.05 on buy side and $0.05 on sell side).

This hypothetical example does not represent any particular investment.

Glossary of key terms

Bid-ask spread. The difference between the price a prospective buyer is willing to pay for an ETF share and the price at which a seller is willing to sell the share.

Discount. When an ETF's net asset value is higher than its market price, the ETF is said to be selling at a discount.

Limit order. An order to buy or sell a security at a specific price or better. A broker executes the trade only within the price restriction.

Margin. The amount of cash or securities a customer must deposit with a broker when borrowing from the broker to buy securities. The investor must maintain a minimum amount on deposit with the broker to buy securities on margin.

Premium. When an ETF's market price is higher than its net asset value, the ETF is said to be selling at a premium.

Sell short. To sell a security not owned by the investor; used to take advantage of an anticipated decline in price. If the price falls, the investor can buy the securities at a lower price, and a profit results.

Short-term cash management. Maintaining market exposure by putting idle assets to work for short periods of time in ETFs.

Stop-loss order. Customer order to a broker that sets the sale price of the security below the current market price. This strategy protects profits that have already been made or prevents further losses if the security drops.

Tax-loss harvesting. Selling the highest-priced shares of an ETF to create capital losses that can be used to offset gains.

Transaction costs. The costs of buying or selling ETFs, including brokerage commissions and the bid-ask spread.

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Valley Forge, PA 19482-2900

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