

An Inside Look at Exchange-Traded Funds

By Rochelle Antoniewicz and Jane Heinrichs

Article Highlights

- ETFs, like mutual funds, are pooled investment vehicles; ETFs differ from mutual funds in terms of how they are traded and priced.
- Two primary features promote trading of an ETF's price close to its underlying value: the transparency of its holdings and the ability of authorized participants to create or redeem shares.
- ETFs are commonly subject to the same tax laws as mutual funds; notable exceptions include physical commodity ETFs and derivatives-based commodity ETFs.

Exchange-traded funds (ETFs) have been one of the most successful financial innovations in recent years.

Since the introduction of ETFs in the early 1990s, demand for these funds has grown markedly in the United States, as both institutional and individual investors have increasingly found their features appealing. In the past decade alone, total net assets of ETFs have increased nearly twelvefold, from \$151 billion at year-end 2003 to \$1.8 trillion as of June 2014, as shown in Figure 1.

With the increase in demand, sponsors have offered more ETFs with a greater variety of investment objectives. Like mutual funds, ETFs are a way for investors to participate in the stock, bond and commodity markets; achieve a diversified portfolio; and gain access to a broad array of investment strategies. Although total assets managed by stock, bond and hybrid mutual funds are significantly larger (\$13.1 trillion) than those of ETFs (\$1.8 trillion), ETFs' share of their combined assets has increased considerably—from less than 3% at year-end 2003 to a little more than 12% by June 2014.

What Is an ETF?

An ETF is a pooled investment vehicle with shares that can be bought or sold throughout the day on a stock exchange at a market-determined price.

In most cases, an ETF is index-based—designed to track the performance of a specified index or, in some cases, a



multiple, an inverse, or a multiple inverse of its index (commonly referred to as leveraged or inverse ETFs).

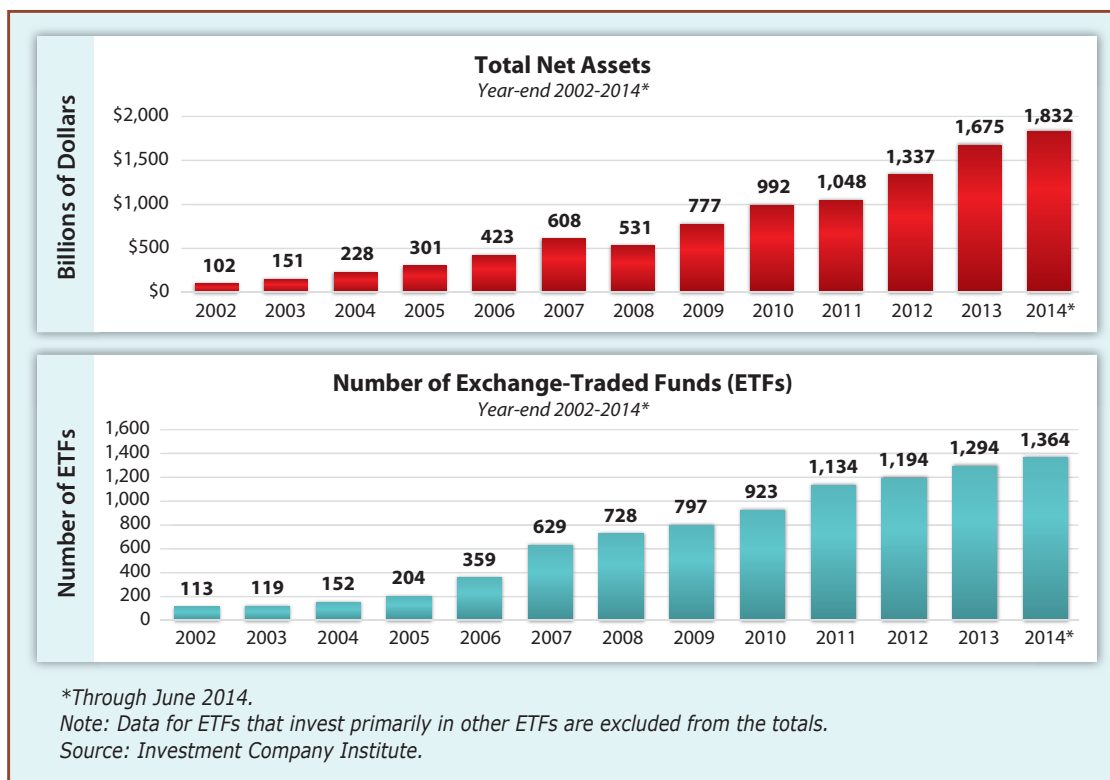
Actively managed ETFs, which do not seek to track the return of a particular index, have been available to investors only since 2008. As of June 2014, there were 78 actively managed ETFs, with about \$15 billion in total net assets.

ETFs Offer a Number of Benefits

Several factors have contributed to the growing popularity of ETFs. Some of these factors are related to specific features of ETFs that investors find attractive, while others are related to general trends in investing and money management that have developed more recently.

Specific features of ETFs that investors find attractive include:

- **Intraday tradability.** An ETF is essentially a mutual fund that has a secondary market. This means that investors buy or sell existing ETFs shares at market-determined prices during trading hours on stock exchanges, in dark pools, or on other trading venues. This feature gives investors liquidity and quick access to different types of asset classes.
- **Transparency.** Generally, the price that an ETF trades at in the secondary market is a close approximation to the market value of the underlying securities that it holds in its portfolio. This fairly tight relationship makes

Figure 1. Total Net Assets and Number of ETFs

party asset allocation models to manage their clients' assets, and they find ETFs to be an efficient and cost-effective way to rebalance their clients' portfolios to implement a change in an investment strategy.

Creation of an ETF

An ETF originates with a sponsor that chooses the investment objective of the fund. In the case of an index-based ETF, the sponsor chooses both an index and a method of tracking it. Index-based ETFs track their

ETFs a convenient and easy option for investors who want to minimize the possibility that the share price could trade at a substantial premium or discount to the net asset value (NAV) of the fund (as can happen in a closed-end fund).

- **Tax efficiency.** As discussed below, investors have been attracted to ETFs because they typically do not distribute capital gains.

General trends that have contributed to the popularity of ETFs include:

- **Access to specific markets or asset classes.** Demand for ETFs by institutional fund managers and individual investors has been spurred by the ability to gain exposure to specific markets or asset classes that would otherwise be difficult or impossible for them to attain. For example, some foreign markets require investors to have foreign-investor status, a local bank account and a local custodian to access their markets. Investors seeking to participate in these markets can overcome these obstacles by

simply buying an appropriate ETF as they would any other stock on an exchange. The ETF has either met all the requirements or achieved the exposure through other types of financial instruments that are not readily available to individual investors.

- **The rising popularity of passive investments.** Investor demand for index-oriented products, particularly in the domestic equity space, has been strong for the past decade. For example, from 2007 through June 2014, index domestic equity mutual funds and ETFs received \$855 billion in cumulative net new cash and reinvested dividends, while actively managed domestic equity mutual funds experienced an outflow of \$595 billion over the same period, as shown in Figure 2.
- **Increasing use of asset allocation models.** Individual investors have become increasingly aware of ETFs through their financial advisers. More financial advisers are moving toward using third-

target index in various ways. Many early ETFs tracked traditional, mostly capitalization-weighted, indexes. More recently launched index-based ETFs follow benchmarks that use a variety of index-construction methodologies, with weightings based on market capitalization or other fundamental factors, such as sales or book value. Others follow factor-based metrics: These indexes first screen potential securities for a variety of attributes—including value, growth, and dividend payouts—and then either equal-weight or market-cap-weight the selected securities. Other customized index approaches include screening, selecting and weighting securities to minimize volatility, maximize diversification or achieve a high or low degree of correlation with market movements.

An index-based ETF may replicate its index (that is, it may invest 100% of its assets proportionately in all the securities in the target index), or it may sample its index by investing in a representative sample of securities in the target index. Representative sampling is

a practical solution for ETFs that track indexes containing securities that are too numerous (such as broad-based or total market stock indexes), that have restrictions on ownership or transferability (certain foreign securities) or that are difficult to obtain (some fixed-income securities).

The sponsor of an actively managed ETF determines the investment objectives of the fund and may trade securities at its discretion, much like an actively managed mutual fund. For instance, the sponsor may try to achieve an investment objective such as outperforming a segment of the market or investing in a particular sector through a portfolio of stocks, bonds or other assets.

The creation/redemption mechanism in the ETF structure allows the number of shares outstanding in an ETF to expand or contract based on demand.

Creation

Mutual funds create and redeem shares on a daily basis, selling to and redeeming from investors. In contrast, the vast majority of ETF investors buy

and sell existing ETF shares in the secondary market (i.e., on stock exchanges). New ETF shares are created in large blocks—25,000 to 200,000 shares—known as creation units and then sold into the secondary market.

Each day, the ETF sponsor publishes its creation basket—a specific list containing the names and quantities of the securities, cash or other assets that may be exchanged for a creation unit of shares of the ETF. The creation basket typically either mirrors the ETF's portfolio or contains a representative sample of the ETF's portfolio.

Only an authorized participant (AP)—typically a large institutional investor with an ETF trading desk that has entered into a legal contract with the fund—can create or redeem shares directly with the ETF. An AP assembles the assets in the ETF's creation basket and turns over the creation basket to the ETF provider in exchange for a creation unit of ETF shares. The AP can either keep the ETF shares or sell them to its clients or to other investors on a stock exchange. The ETF may

permit or require an AP to substitute cash for some or all of the assets in the creation basket, particularly when an instrument in the creation basket is difficult to obtain or transfer.

Figure 3 illustrates the creation process.

Redemption

The redemption process is simply the reverse. A creation unit is redeemed when an AP acquires the number of shares specified in the ETF's creation unit and returns the creation unit to the ETF. In return, the AP receives that day's redemption basket of securities, cash or other assets. Typically, the composition of the redemption basket is the same as the creation basket.

ETFs and Mutual Funds

Though ETFs share some basic characteristics with mutual funds, there are key operational and structural differences between the two types of investment products.

Key Similarities

Both mutual funds and ETFs can provide the basic building blocks of investors' portfolios. An ETF is similar to a mutual fund in that it offers investors a proportionate share in a pool of stocks, bonds and other assets. Also, like mutual funds, new shares of ETFs can be created or redeemed at any time, and ETFs are required to post the marked-to-market net asset value of their portfolio at the end of each trading day.

Like mutual

Figure 2. Some of the Outflows From Domestic Equity Mutual Funds Have Gone to ETFs

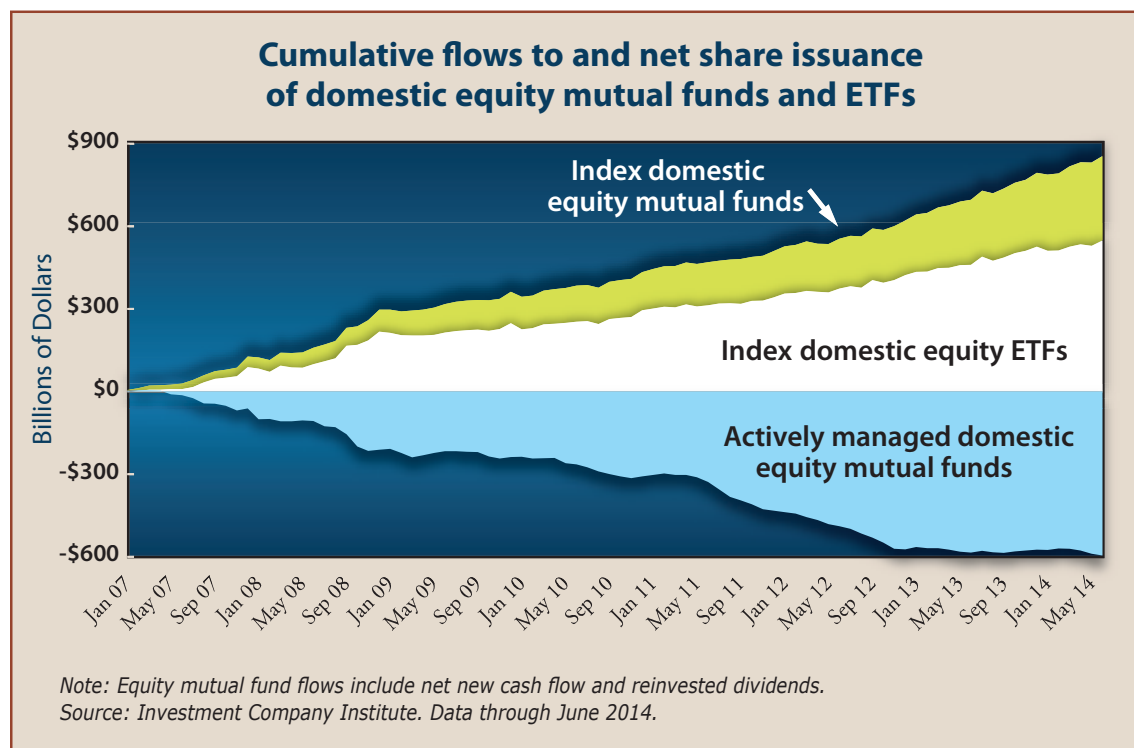
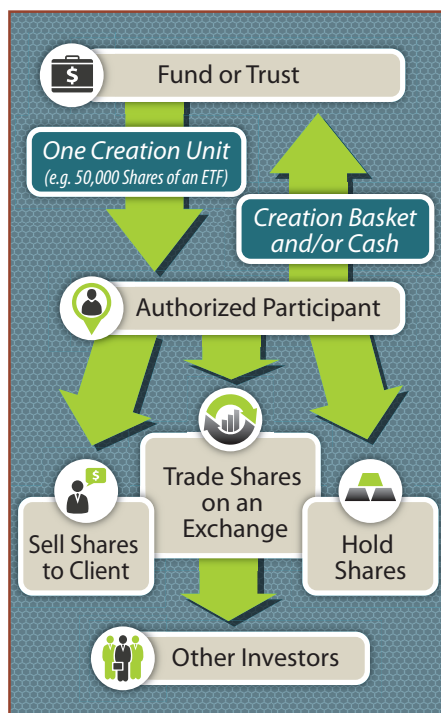


Figure 3. Creation of an ETF

funds, ETFs are most commonly structured as open-end investment companies, and they are governed by the same regulations. The vast majority of ETFs (funds accounting for 96% of assets) are regulated by the Securities and Exchange Commission (SEC) under the Investment Company Act of 1940, in essentially the same way as mutual funds.

Despite these similarities, key features differentiate ETFs from mutual funds.

Key Differences

One major difference between ETFs and mutual funds is that individual investors buy and sell ETF shares on a stock exchange through a broker-dealer, much as they would any other type of stock. In contrast, mutual fund shares are not listed on stock exchanges. Rather, investors buy and sell mutual fund shares through a variety of distribution channels, including through investment professionals (full-service brokers, independent financial planners, bank or savings institution representatives, or insurance agents) or directly from a fund company.

Mutual funds and ETFs are also priced differently. Mutual funds are “forward priced,” meaning that, though investors can place orders to buy or sell shares throughout the day, all orders placed during the day will receive the same price—the fund’s net asset value at the next time it is computed. Most mutual funds calculate their net asset value as of 4:00 p.m. (EST) because that is the time U.S. stock exchanges typically close.

In contrast, the price of an ETF share is continuously determined through trading on a stock exchange. Consequently, the price at which investors buy and sell ETF shares on an exchange may not necessarily equal the net asset value of the portfolio of securities in the ETF. Two investors selling the same ETF shares at different times on the same day may receive different prices for their shares, both of which may differ from the ETF’s net asset value.

Physical commodity ETFs and derivatives-based commodity ETFs that are not registered under the Investment Company Act of 1940 hold about 4% of ETF assets. Physical commodity ETFs typically hold precious metals or currencies, register their securities with the SEC under the Securities Act of 1933 and are subject to regulation by the stock exchanges. Derivatives-based commodity ETFs invest in commodity derivatives (typically futures, options or both) to obtain exposure to such commodities as precious metals, oil and gas, and currencies. These ETFs are regulated primarily by the Commodity Futures Trading Commission as commodity pools. They also register their securities with the SEC under the Securities Act of 1933 and are subject to regulation by the stock exchanges.

What Determines an ETF’s Price?

The price of an ETF share on a stock exchange is influenced by the forces of supply and demand. Though imbalances in supply and demand can cause the price of an ETF share to

deviate from its underlying value (i.e., the market value of the underlying instruments, also known as the intraday indicative value, or IIV), substantial deviations tend to be short-lived for many ETFs.

Two primary features of an ETF’s structure promote trading of an ETF’s shares at a price that approximates the ETF’s underlying value: portfolio transparency and the ability for APs to create or redeem ETF shares at the net asset value at the end of each trading day.

The transparency of an ETF’s holdings enables investors to observe—and attempt to profit from—discrepancies between the ETF’s share price and its underlying value during the trading day. ETFs contract with third parties (typically market data vendors) to calculate an estimate of an ETF’s intraday indicative value, using the portfolio information that an ETF publishes daily. Intraday indicative values are disseminated at regular intervals during the trading day (typically every 15 seconds). Some market participants will use their own computer programs to estimate the underlying value of the ETF on a more real-time basis and engage in trading when an ETF’s share price is at a discount or premium to its underlying value.

The ability of APs to create or redeem ETF shares at the end of each trading day also helps an ETF trade at market prices that approximate the underlying market value of the portfolio. For example, when an ETF is trading at a discount, APs may find it profitable to buy the ETF shares and sell short the underlying securities. At the end of the day, APs return ETF shares to the fund in exchange for the ETF’s redemption basket of securities and/or cash, which they use to cover their short positions. When an ETF is trading at a premium, APs may find it profitable to sell short the ETF during the day while simultaneously buying the underlying securities. At the end of the day, the APs will deliver the creation basket of securities and/or cash to the ETF in exchange for ETF shares that they use to cover their short sales. These actions by APs, commonly described as

arbitrage opportunities, help keep the market-determined price of an ETF's shares close to its underlying value.

ETFs and Taxes

Different types of ETFs have different tax treatments.

Investment Company Act ETFs

ETFs registered under the Investment Company Act of 1940 are subject to the same tax rules as mutual funds. To improve their tax efficiency, ETFs commonly employ two mechanisms that also are available to mutual funds: low portfolio turnover and in-kind redemptions. The relative tax efficiency of ETFs and mutual funds depends on the extent to which they use these mechanisms.

- **Low portfolio turnover strategies.** Like index-based mutual

funds, index-based ETFs are less likely than actively managed funds to trade securities, thus reducing taxable gains that must be distributed.

- **In-kind redemptions.** ETFs that distribute securities to APs that are redeeming ETF shares can reduce their unrealized gains (also known as tax overhang) by distributing securities that were purchased for less than their current value (so-called low-basis securities). Because these transactions are in-kind, the ETF does not incur any tax when the low-basis securities are distributed.

It is important to note that though these strategies can reduce capital gains distributions to investors while they are holding ETF shares, investors ultimately pay taxes on any capital gains when they sell their ETF shares. Thus these strategies enable tax efficiency through tax deferral, but not tax avoidance.

Physical Commodity ETFs

Physical commodity ETFs are structured and taxed as grantor trusts. Investors in these ETFs are taxed as though they own the underlying assets. That is, investors are primarily taxed when they sell their investment—although there also may be tax consequences if the ETF sells commodities, such as to pay expenses.

Derivatives-Based Commodity ETFs

Derivatives-based commodity ETFs are typically structured as trusts and taxed as partnerships. This carries a number of tax implications, including that investors are taxed annually on so-called mark-to-market gains (even if the assets are not sold), as reported on Internal Revenue Service Form K-1.

Professional tax advisers can help educate investors about the tax implications of investing in ETFs. ▲

Rochelle Antoniewicz is a senior economist and Jane Heinrichs is a senior associate counsel at the Investment Company Institute (ICI). For more on the authors, go to www.aaii.com/authors/rochelle-antoniewicz and www.aaii.com/authors/jane-heinrichs. Read their new paper on ETFs, "Understanding Exchange-Traded Funds: How ETFs Work," at www.ici.org/etf. For more information on ETFs, visit www.ici.org/etf_resources. Follow ICI on Twitter at twitter.com/ici.

Financial Planning

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born out of the fact that people were no longer able to contribute, which of course is untrue today. The cost of retirement is not easily afforded by most people. Retirement may not be good for individuals' health or their relationships with their significant others. It's not necessarily good for business, and it's not good for the economy.

We should think about retiring retirement, at least from the perspective of how we've looked at it historically. Maybe people work until age 70, or

they work part-time for a few years in retirement and then gradually retire. They can extend some of their work and their input to society. Surveys of older people say that a lot of people who are working into their so-called retirement years are not working specifically for financial needs. They're doing it for socialization, they're doing it for enjoyment, they're doing it for the connection they have with people, they're doing it to stay active and engaged. They're doing it for a whole lot of reasons that have

nothing to do with financial preparedness, but that just make good sense otherwise. So I challenge the premise that we should still be thinking about retirement the way that we have done for the last hundred years. I think that is passé and we need to move on to something better for people.

Editor's note: Go to AAIL.com to see Falk's thoughts on ruin-contingent life annuities and the Treasury Department's new rules for putting annuities into corporate retirement plans. ▲

Michael S. Falk, CFA, CRC, is a partner at Focus Consulting Group and a partner and the chief strategist at Mauka Capital LLC. Find out more about Michael Falk at www.aaii.com/authors/michael-falk. Charles Rotblut, CFA, is a vice president at AAIL and editor of the AAIL Journal. Find out more about Charles at www.aaii.com/authors/charles-rotblut and follow him on Twitter at twitter.com/CharlesRAAIL.