FlexShares®

Everything You Wanted to Know About ETFs

(And Why You Should Know It)

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- **More than $4 trillion dollars are invested in them worldwide.**
- **More than six million U.S. households hold them.**
- **And those households have higher income and greater financial assets than those owning mutual funds or individual stocks.[1]**

They are Exchange Traded Funds, or ETFs, and they are one of the fastest growing investment vehicles available to investors today, climbing to net inflows of U.S. $1.2 trillion compared to just $61 billion into mutual funds for the period 2008 to 2015.[2] According to a recent survey by the Financial Planning Association, ETFs were judged by professional advisors to be the most popular investment option among 17 choices, which included stocks, bonds, mutual funds, hedge funds, private equity funds and annuities.[3] No wonder, then, that some predict the adoption of ETFs is all but certain to eclipse that of mutual funds as the investment community grows.

Despite phenomenal growth, there is evidence that many individual investors (and perhaps many advisors also) remain on the sidelines due to misunderstandings about ETFs — for example, what they invest in, how they work and what they cost.

Founded in 2011, FlexShares is committed to helping investors achieve their goals by providing the products and solutions that allow them to construct, allocate and manage outcome-oriented portfolios. We prepared this paper to present a detailed overview of ETFs with the goal of taking any "mystery" out of this important investment vehicle and, hopefully, encouraging all investors to consider ETFs as part of their core holdings in a diversified portfolio strategy.

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[1] *Investment Company Institute. 2016 Investment Company Fact Book.*
[2] *Chevreau, Jonathan. "Are ETFs beating out mutual funds in popularity?" MoneySense. April 21, 2016.*
[3] *Maxey, Daisy. "Advisers Prefer ETFs Over Mutual Funds, Survey Finds." The Wall Street Journal. May 28, 2015.*

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ETF HISTORY: A LOOK BACK

A little over 20 years ago, in January 1993, the American Stock Exchange released the S&P 500 Depositary Receipt (SPDR), nicknamed the "spider" with the stock ticker SPY. Today, this first modern-day ETF remains the most heavily traded ETF in the marketplace with assets under management of nearly $200 billion.

New ETFs quickly followed the success of the SPDR: "sector spiders" and the Dow Diamonds (DIA) in 1998, then the NASDAQ "cubes" (QQQ) in 1999. The "oughts" years witnessed a blossoming of more and more innovative ETFs: Bonds in 2002; gold in 2004; and in March 2008, the first actively managed ETF. By December 2011, assets under management in ETFs hit the $1 trillion mark.

Demand has grown exponentially across the last decade. As of June 2016, the U.S. ETF market, the largest in the world, had more than $2.2 trillion in assets under management in 1,674 ETFs.[4] Approximately 98% of these assets are in funds that are registered with or regulated by the SEC under the Investment Company Act of 1940. The remainder is in non-1940 Act ETFs, which invest primarily in commodities, currencies and futures. Those that invest solely in commodities are regulated by the SEC under the Securities Act of 1933. The others are regulated by the Commodity Futures Trading Commission (CFTC) under the Commodity Exchange Act.[5]

ETFS ARE NOT THE ONLY ETPS

While ETFs are the most widely known they are not the only ETPs, or Exchange Traded Products, all of which share a similar structure and trade in much the same way. Included are Exchange Traded Notes (ETNs), Exchange Traded Commodities (ETCs), and other forms of Exchange Traded Vehicles (ETVs). Unfortunately, the terminology used to describe these products is not consistent and there are structural differences among ETPs outside the U.S. that are not clear and exist without universally accepted classifications. Nevertheless, each type of exchange traded product has distinguishing characteristics that are important to note.

[4] *Exchange Traded Funds Monthly Report. June 2016. Investment Company Institute.*
[5] *2016 Investment Company Fact Book. Investment Company Institute.*

THE FOLLOWING IS A BRIEF OVERVIEW

ETP	ETF	ETN	ETC	ETV
STRUCTURE	• Open ended fund • Registered under 1940 and 1933 Acts • Board of independent directors/trustees • Shareholders have voting rights • Dividends can be reinvested • In kind or cash purchase and redemption	• Unsecured debt of a corporation or bank • Registered under Securities Act of 1933 • No voting rights • Cash purchase and redemption	• Pooled Commodity Vehicles • Registered under Securities Act of 1933 Commodity Pool • Unit holders have limited voting rights • Cash purchase and redemption more transparent and efficient (compared to ETNs) • Partnership pass-through gains, income losses deductions and credits • Redemption rights are more contingent	• Typically, a Grantor Trust • Registered under Securities Act of 1933 • In kind purchase and redemption. Mechanisms are more transparent and efficient (compared to ETNs) • No shareholder voting rights • Redemption rights are more contingent
INVESTMENT	• Can replicate or sample an index • Can invest in derivatives • Securities lending available • Equities, fixed-income, financial futures/swaps/options	• Track the benchmark of an index • Implies investment as well as credit risk of the underlying issuer • Goal is to get return of Index minus management fees • No securities lending available • Equities, fixed income, financial futures, commodities and commodity futures, swaps, options, currencies etc.	• Securities lending not available • Investment programs: Exchange traded and OTC commodity futures contracts, forward contracts, options, futures and swaps • Equities, fixed income, financial futures, commodities and commodity futures, swaps, options, currencies etc.	• Securities lending not available • Investment programs: Physically held metals and foreign currencies (with interest)

THE FOLLOWING IS A BRIEF OVERVIEW (Continued)

ETP	ETF	ETN	ETC	ETV
SOURCE OF INVESTMENT CONSTRAINT	Tax and Securities Regulations	Tax and Securities Regulations	Tax and Securities Regulations	Tax and Securities Regulations
TAX TREATMENT	"Conduit" treatment of realized gains and income via form 1099-DIV	Capital gains is realized by note holders on sales or redemption of notes	Tax reporting on Schedule K-1	Grantor trust pass-through treatment of the trust's gains, income losses and expenses; variable shareholder tax consequences under IRC rulings that tie to the nature of the trust's assets
CUSTODY OF ASSETS	Fund assets held in a segregated custody account	Uncollateralized obligation	Fund assets are held at a custodial segregated account	Potential credit exposure through use of depository accounts
OTHER	N/A	Normally utilized for difficult to access markets i.e. India, or commodities that otherwise would roll futures and could be expensive and with a tax disadvantage. Uncertain tax status.	Comfort with tax circumstances?	Tax considerations (i.e., collectibles, single currency, income)

TYPES OF ETFs

Active Management Vs Passive Management

Most ETFs are indexed funds, seeking to mirror the performance of a recognized and accurately measurable benchmark such as a broad market (S&P 500, Russell 3000,), or a group of companies (sectors or industries), fixed income instruments, currencies, commodities, etc. These funds are passively managed. In 2008, however, the SEC allowed ETFs to operate as actively managed funds. Hence, today the industry has developed a variety of funds that do not track a particular index but rather try to enhance returns by using different strategies such as market timing, short selling or derivatives, among others. Actively managed ETFs tend to have higher expense ratios because of the attendant transaction and administrative costs they incur.

Traditional Vs Nontraditional

Actively managed ETFs also have a further delineation into traditional and nontraditional investment methodologies. Nontraditional ETFs can be leveraged or inverse funds. Leveraged funds aim to achieve a return that is a multiple of the performance of the underlying index. Inverse funds, on the other hand, aim for a return that is the opposite of the performance of its index. And a leveraged inverse fund (for instance, two times leveraged) seeks to deliver double the inverse of its index's performance.

These types of funds are extremely volatile and are not designed to reach long-term investment objectives. In fact, most are "reset" daily and are suitable only for day traders who have the ability to monitor performance constantly throughout the trading day.

Smart Beta or Alternative Beta

The vast majority of assets under management in ETFs today is in funds that rely on traditional market capitalization-based indexes. More recently, a renewed interest in multifactor investing has begun to fuel "smart beta" methodologies. The term "smart beta" actually defines a set of investment strategies that rely on the use of alternative construction rules to make up their underlying indexes. Factors that may be considered include common drivers of return such as company value, quality, size, cash flow, or even dividends. The smart beta approach is strictly rules-based, systematically selecting, weighting and rebalancing the fund's holdings on the basis of the selected factors.

HOW ETFs WORK

ETFs generally track an index that holds several different equities or other asset types and offer diversification as well as considerable transparency into their methodology and components. But ETFs also have many characteristics that are similar to individual stocks: continuous intraday pricing while financial markets are open, availability in any brokerage account, bid/ask spreads, trading flexibility and low execution costs. In other words, ETFs trade similar to stocks.

Because of their similarities, ETFs and mutual funds are often called "sister" products. Their differences, however, are great. Fees and expenses are often compared. According to Morningstar Direct, ETFs have an average annual expense ratio of 0.58% while mutual funds average 0.86% (and 1.23% for actively managed mutual funds).[6] In addition, from accessibility and minimums to holdings transparency, to tax efficiency and trading costs, ETFs offer investors at every level unique benefits. For an in-depth comparison, download our paper, "ETFs vs. Mutual Funds: The Same, But (Very) Different."

CREATION/REDEMPTION PROCESS

Unfortunately, few investors understand the mechanics of an ETF's share structure or why that matters. The creation/redemption process is actually the mechanism that makes ETFs typically less expensive to own, and generally more transparent and tax efficient than mutual funds.[7] Perhaps most important, it is the reason ETFs have the ability to maintain liquidity, trading throughout the day at prices that reflect the fluctuating market value of their respective underlying securities.

The ETF creation process occurs when an investor enters an order to purchase a large number of ETF shares and there are not enough available shares on the secondary market. An Authorized Participant or AP (an investment bank, a broker-dealer, a market maker, is contacted who then borrows or buys (or already is holding) the quantities of the named securities that either exactly mirror or are a representative sampling of those in the ETF's portfolio in order to build what is called a "creation basket." Though an AP may buy varying sizes of securities bundles, 50,000 or 100,000 shares are the numbers commonly designated as one creation unit for a given ETF.

This basket of underlying securities is held in a trust or by the fund, which in turn provides the AP with "shares" of the ETF — actually legal claims on the shares held in trust. The AP may hold those shares or sell some or all of them on a stock exchange where investors can purchase them as they would any publicly traded stock. The redemption process is simply the opposite of the creation process. Because these are "in-kind" trades of securities for securities, they are tax-exempt, hence, the tax efficiency attribute of ETFs.

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[6] *Morningstar Direct data as of May 31, 2016.*

[7] *ETFs are subject to commission costs each time a buy or sell is executed. Depending on the amount of trading activity, the low costs of ETFs may be outweighed by commissions and related trading costs compared to mutual funds.*

WHO SHOULD BUY ETFs?

Most professionally advised investors follow a core-satellite method in designing their portfolios in order to minimize costs, tax liability and volatility. The core would hold passively managed investments that track broad market indexes, either traditional or alternative beta, while satellite holdings would comprise more actively managed vehicles that seek to outperform the passive portion of the portfolio…for instance, sector funds, individual commodities, individual country funds, etc. Implementation can be handled in a variety of ways, using combinations of ETFs, mutual funds, and even individual stocks and bonds.

ETFs are particularly suited to investors who are:

- **Buy-and-hold investors** — ETFs may have lower annual expense ratios than mutual funds, but they trigger transaction costs outside of the fund when bought or sold, so ETFs may better suit individuals who are not extremely active traders.
- **Lump-sum investors** — Because of transaction costs, ETFs may be better suited for investors looking to invest a lump sum rather than those investing smaller amounts at regular intervals.
- **Looking for flexibility** — ETFs offer techniques such as selling short, buying on margin, options or placing stop and limit orders.
- **Interested in market niches** — ETFs can offer exposure to a narrow slice of the market.

BEGINNING WITH THE END IN MIND

Many ETFs have become increasingly complex, making them more difficult to understand. To better comprehend an ETF's structure and underlying index as well as the investment manager's approach, investors should ask four basic questions:

- Does the fund achieve its objective?
- Can it be accessed at a fair price?
- Does it give the targeted exposure I am looking for?
- Does it align with the investor's real world-goals?

At FlexShares, we are focused on the long-term investor. "Investing with purpose" is at the heart of our unique brand of ETFs.

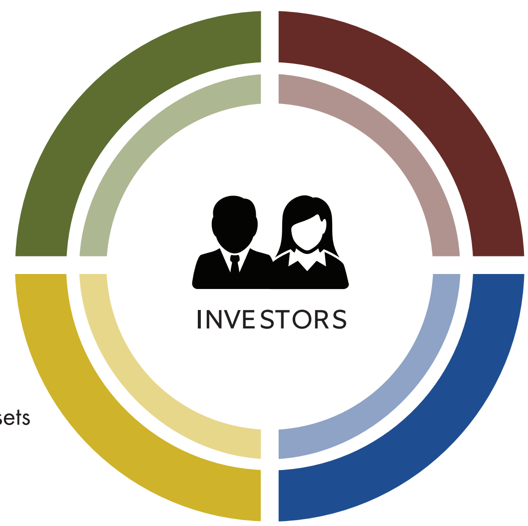
Ours is a very different methodology from that of pure asset allocation. Rather, it is one that bases customized portfolio recommendations on the investor's specific goals, for example, growing assets, managing risk, generating income, providing liquidity — or a combination. FlexShares investors gain all the traditional benefits of ETFs: transparency, flexibility, tax efficiency and generally lower costs than mutual funds. But they also can take advantage of "flexible indexing," our proprietary approach to delivering index solutions. It is a comprehensive approach that spans the entire process, from index concept, design, construction and development to the fund's ongoing management.

Capital Appreciation
Investment strategies seeking to replicate the performance outcomes of investing in growth-seeking assets

Target Outcome:
Seek Growth with Purpose

Risk Management
Investment strategies seeking to manage specific factor-related risks and mitigate portfolio risks

Target Outcome:
Seek to Manage Risk



Income Generation
Investment strategies seeking to replicate the performance outcomes of investing in income-generating assets

Target Outcome:
Seek Income for Expected Needs

Liquidity Management
Investment strategies featuring cash-plus and fixed income solutions with flexible guidelines

Target Outcome:
Seek Liquidity and Flexibility

FlexShares are sponsored and managed by Northern Trust, one of the world's leading investment firms and a premier index manager. We leverage this global expertise in asset allocation, portfolio construction and risk management.

We take pride in sharing our knowledge and expertise in this important investment instrument, providing in-depth commentary and analysis and specialized advisor-only content in print and via our exclusive audio-visual presentations on our video streaming channel. We invite financial advisors and their clients to learn more about the FlexShares family of goals-based ETFs. Call us at 855-FlexETF (1-855-353-9383) or visit **www.flexshares.com.**

IMPORTANT TERMS

Futures: Financial contracts obligating the buyer to purchase an asset or the seller to sell an asset, such as a physical commodity or a financial instrument, at a predetermined future date and price. Futures contracts detail the quality and quantity of the underlying asset; they are standardized to facilitate trading on a futures exchange. Some futures contracts may call for physical delivery of the asset, while others are settled in cash.

Swaps: A derivative contract through which two parties exchange financial instruments. These instruments can be almost anything, but most swaps involve cash flows based on a notional principal amount that both parties agree to. Usually, the principal does not change hands. Each cash flow comprises one leg of the swap. One cash flow is generally fixed, while the other is variable, that is, based on a benchmark interest rate, floating currency exchange rate or index price.

Options: A financial derivative that represents a contract sold by one party (the option writer) to another party (the option holder). The contract offers the buyer the right, but not the obligation, to buy (call) or sell (put) a security or other financial asset at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date).

Short Selling: The sale of a security that is not owned by the seller, or that the seller has borrowed. Short selling is motivated by the belief that a security's price will decline, enabling it to be bought back at a lower price to make a profit.

Beta: Measure of the volatility of a security or a portfolio in comparison to the market as a whole.

Bid/Ask Spreads: The amount by which the ask price exceeds the bid price for an asset in the market. The bid-ask spread is essentially the difference between the highest price that a buyer is willing to pay for an asset and the lowest price that a seller is willing to accept to sell it.

Buying on Margin: The purchase of an asset by paying the margin and borrowing the balance from a bank or broker. Buying on margin refers to the initial or down payment made to the broker for the asset being purchased; the collateral for the borrowed funds is the marginable securities in the investor's account.

Stop/Limit Orders: An order placed with a broker that combines the features of a stop order with those of a limit order. A stop-limit order will be executed at a specified price, or better, after a given stop price has been reached. Once the stop price is reached, the stop-limit order becomes a limit order to buy or sell at the limit price or better.

Stop Order: With a stop order, the trade will be executed only when the security the investor wants to buy or sell reaches a particular price (the stop price). Once the stock has reached this price, a stop order essentially becomes a market order and is filled.