# ETF mechanics

An **Exchange Traded Fund (ETF)** is a type of investment vehicle that in many ways is a hybrid of a mutual fund and a stock. Like a mutual fund, an ETF can be built to track the performance of an index or can be actively managed. Similar to a stock, an ETF can be bought or sold on an exchange.

The first ETF was launched in the US in 1993. There are more than 8,600 different ETFs available worldwide[1]. ETFs have grown to a universe worth more than $10 trillion globally as of 2021.[2]


## How does an ETF work?

Why are ETFs used?

## Key Benefits

**Tactical allocation** – Quick and easy to transact, ETFs can be bought and sold the same as a single stock.

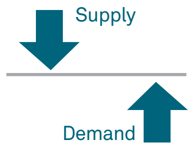
**Cost** – ETFs are considered more cost effective than mutual funds as they have typically have lower expenses. However, since buying or selling ETF shares on an exchange may require the payment of brokerage commissions, trading activity may increase the cost of ETFs.

**US tax efficiency**[3]

- Through the creation/redemption mechanism, ETFs can transfer securities in-kind to meet redemption needs.
- This type of payment, made in securities as opposed to cash, is referred to as an in-kind payment.
- Meanwhile, in order to settle a redemption, a redemption a mutual fund will sometimes need to sell holdings, potentially realizing capital gains that are passed back to shareholders.
- The ability to buy and sell an ETF in the secondary market allows investors to meet on an exchange without always having to redeem at the fund level.

## Supply & demand

**Step 1:** When new ETF shares need to be created (demand outweighs supply), market makers go through an authorized participant (AP) to perform the transaction.




**Step 2:** The AP will compile the necessary securities/cash for delivery to the ETF.

**Step 3:** Upon receipt of the securities and cash, the ETF issuer will issue new shares of the ETF to the AP.

**Step 4:** The AP will pass the ETF shares to the market maker to replenish inventory.

*The process works in reverse for redemptions when supply exceeds demand.*

Securities

ETF issuer

ETF shares

CREATION

REDEMPTION

PRIMARY MARKET

Market where **ETF** shares are created and redeemed.

Authorized Participant

– They are a large broker/dealer that acts as a bridge between the exchange and the issuer.
– Shares are issued/redeemed to APs in large blocks, known as 'creation units'

– They help ETFs trade at prices close to the market value/NAV of their portfolio holdings.

Premium

Discount

### Premiums & discounts

Due to surges in either demand or supply – an ETF can sometimes trade at either discount or premium to the value of its underlying assets (net asset value – NAV).

ETFs generally trade close to their NAV due to the creation/redemption function.
When trading at a premium, APs will create more shares to add supply to the market and vice versa.

Buyers

STOCK EXCHANGE

Market Maker

A dealer that buys or sells at specified prices at all times; also known as liquidity providers.

Sellers

SECONDARY MARKET

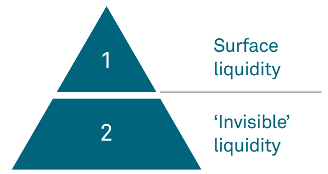
An exchange where **ETF**s are traded e.g: New York Stock Exchange.

## Liquidity

ETF liquidity = exchange volume + volume of underlying basket

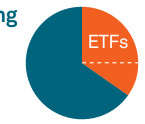
**1. Secondary market volume:** The number of existing shares in the ETF available to be traded.

**2. Primary market volume:** The volume of the underlying basket of stocks in the ETF.




## Did you know?

**In January 2022, trading in ETFs accounted for almost half of all US equity trading volumes, up from around 30% in 2021.**[4]




1. Source: Statista. Worldwide ETF Assets under management 2003-2021. Published March 18, 2022.
2. IBID.
3. ETF tax efficiency can be derived from certain structural elements, including: turnover, which in passive strategies is typically lower than in active; in-kind redemptions, in which no capital gains are realized. This can allow investors more control over the timing of their tax liabilities based on when they generally sell their position. Please consult your own tax advisor or financial professional for more detailed information on tax issues as they relate to your specific situation.
4. Source: ETF Stream. ETF volumes hit record levels amid market turmoil. January 31, 2022.



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