

AF4 2020/2021

Investment Products

Part 2: Exchange Traded Funds

An ETF is a widely used investment in the USA and is becoming more common in the UK. It has some of the characteristics of an OEIC, some of an Investment Trust.

The milestones for this part are to understand:

- The similarities and differences between an ETF and Unit Trusts/OEICS and an Investment Trust
- The relationship between the ETF and the Authorised Participant
- The mechanism that ensures that ETF shares trade close to NAV
- The advantages of investors using an ETF
- How an Exchange Traded Commodity fund operates and the difference between a real and synthetic arrangement
- How Exchange Traded Notes operate

Similarities and differences

- An ETF is **like an Investment Trust** in that its shares are listed on the stock market and investors buy and sell shares in the ETF through a stockbroking service.
- An ETF is **like a unit trust/OEIC** because it can issue new shares.
- An ETF is **like a unit trust/OEIC** in that the price of the shares will always be close to the net asset value (NAV) of the fund. With an Investment Trust the price of the shares can trade at a premium or discount.

There are two bodies involved in an ETF.

- The **ETF issuer**. The body initially issues the shares and can create or cancel these.
- An **Authorised Participant (AP)**. This could be a bank, a market maker or another financial institution.

Neither body deals with individual investors.

The basic ETF operation.

An ETF issuer decides to offer a FTSE tracker fund. It issues a prospectus, invites investors to subscribe and creates 10 million shares. If it were an Investment Trust, it would use the money to buy the shares it needed and that would be the end of the process.

However, the ETF doesn't buy shares on own account but instructs the AP to buy the selected shares. (we'll refer to these as underlying shares) Let's say the value of assets purchased is £10 million.

The AP then swaps the assets for ETF shares of equivalent value. This might be 10 million ETF shares valued at 100p which are then placed on the market.

Alternatively, the ETF might give the AP four "creation" shares of £25 million who in turn breaks them down 10 million retail shares. The AP will probably retain some of the shares for itself.

At the heart of the ETF process is the right of the AP to exchange assets with the ETF provider. It can swap ETF shares for the underlying shares and vice versa. It is the ability to do this that results in ETF shares trading close to NAV.

To understand how this works let's first consider how the AP can use any difference between the share price and the value of the assets. We'll keep the numbers small as this will help get a grip on the process.

The value of ETF shares on the open market is £1,200 but the value of the assets is £1,000 In an Investment Trust they would be trading at a premium.

The AP owns ETF shares and can sell them for £1,200. At the same time it also buys more of the underlying assets which costs £1,000. This gives it a basically risk-free profit of £200 before charges. It can then ask the ETF issuer to swap the assets it has bought for ETF shares.

This also works if the shares are trading at a discount.

The value of ETF shares on the open market is £1,000 but the value of the assets is £1,200.

The AP buys ETF shares for £1,000. It also sells the underlying assets for £1,200. Again it gets a risk-free profit of £200 before charges. It can then ask the ETF issuer to swap the ETF shares it has bought for the underlying assets.

Equilibrium between the share price and asset value is achieved because the buying and selling process will affect the price of the ETF shares and the underlying assets.

As a result of high demand for ETF shares the price rises to 120p whereas the “fair value” is 118p.

The AP **sells ETF shares** and **buys more of the underlying assets**. Selling ETF shares will push its price down and buying assets will increase their price from 116p. This will result in the share price and NAV coming into equilibrium

The AP will then swap the assets it purchased for ETF shares.

In practice this is carried out through automated trading throughout the day exploiting small differences between the ETF share price and the value of the assets.

If the share price falls the process is reversed.

As a result of heavy selling the ETF share price falls to 200p whereas the value of the underlying shares is 210p.

The AP now **buys** the undervalued shares and **sells** the underlying assets. The buying process increases the ETF share price and selling the assets reduces the price thus getting the two in equilibrium.

The AP can swap the shares it has purchased for underlying assets from the ETF issuer

The benefits for an individual investor in buying ETF shares rather than a unit trust or OEIC index tracker can be summed up as follows

- Lower costs.
- The buyer pays no stamp duty even though a share is being purchased.
- Prices are calculated in real time whereas the price of an OEIC is set once a day. This means the price the buyer pays or the seller receives is known at the time of the trade.
- Because the ETF doesn't deal with the retail investor it does not have to sell shares to cope with increased sell orders. An OEIC may be forced to sell some of its underlying assets in similar circumstances

Although they were mainly tracker funds, in recent years a wider range of ETFs have become available including commodities which are called Exchange Traded Commodities (ETC)

Exchange Traded Commodities

It is difficult for the average investor to get an exposure to commodities. The traditional way was to invest in shares of mining or extraction companies, either directly or indirectly via collectives. Profits of these companies will be driven in part by the rise (or fall) in the underlying commodity

Commodities have low correlation to equities and bonds which according to modern portfolio theory should result in reduced risk without necessarily reducing future returns

Like an ETF, they are open-ended securities and depend on the same relationship between the issuer and Authorised Participant. They are traded and settled exactly like normal shares.

They come in two forms:

- Single commodity
- Multi asset. These give an exposure to a range of different commodities

If a commodity can be stored with no risk of deterioration, the ETC may be backed by the physical commodity.

GRQ offers a physical ETC that aims to track the price of gold. It owns and stores gold bullion that backs the ETC

A physical ETC works exactly like an ETF.

- The ETC issuer creates shares and the authorised participant buys the commodity as instructed by the ETC.
- The AP exchanges these for shares in the ETC.
- If the shares are trading at a premium the AP would sell the shares and buy the commodity.
- If the shares are trading at a discount the AP would buy the shares and sell the commodity.

This approach is not suitable for “soft” commodities such as sugar or wheat as it would not be possible to store the commodity for a long period. Even where physical storage is possible as in the previous example the ETC will incur storage and insurance costs.

The alternative is to have a **synthetic ETF**. There are a number of ways in which this could be done. One is to use derivatives on the future value of the commodity.

Alternatively a swap arrangement may be made. Here the ETC agrees with a financial institution that it will swap the change in the value of a commodity (or basket of commodities)

Both parties will pay a sum of money to a custodian to ensure that both sides can meet their obligations. If the commodity price rises, the financial institution pays the ETC the difference between the originally agreed price and the market price. If the price falls the ETC pays the institution.

This arrangement has benefits:

- It delivers the accurate change in the price of the commodity.
- It has lower costs since the ETC doesn't incur storage buying and selling costs
- It enables ETC to have exposure to commodities that can't be stored

Exchange Traded Notes

These are similar to an ETF or ETC in that they are designed to track an index or commodity. However they do not hold any assets and are structured as a debt issued by banks or a brokerage firm.

Unlike an ETF/ETC they have a maturity date but can be traded prior to that. In practice they will promise to pay the initial investment plus the growth in the index or commodity since launch. As they rely on the bank being able to pay the maturity value, the investor is subject to counterparty risk as well as performance risk.

Typically ETNs are created where financial regulation prohibits holding the asset being held in a fund structure.

That concludes this part so you should now understand:

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Further Reading

Exchange Traded Funds

<https://documentcloud.adobe.com/link/review?uri=urn:aaid:scds:US:4832b55f-04d4-46c2-8062-35ec494ddf0e>

Exchange Traded Commodities

<https://www.whatinvestment.co.uk/exchange-traded-commodities-a-passive-path-into-commodities-2617178/>

Exchange Traded Notes

<https://www.fidelity.com/learning-center/investment-products/etf/types-etfs-etns>