

THE
INVESTMENT
ASSOCIATION

Dechert
LLP

ETFs: A BEGINNER'S GUIDE

November 2018



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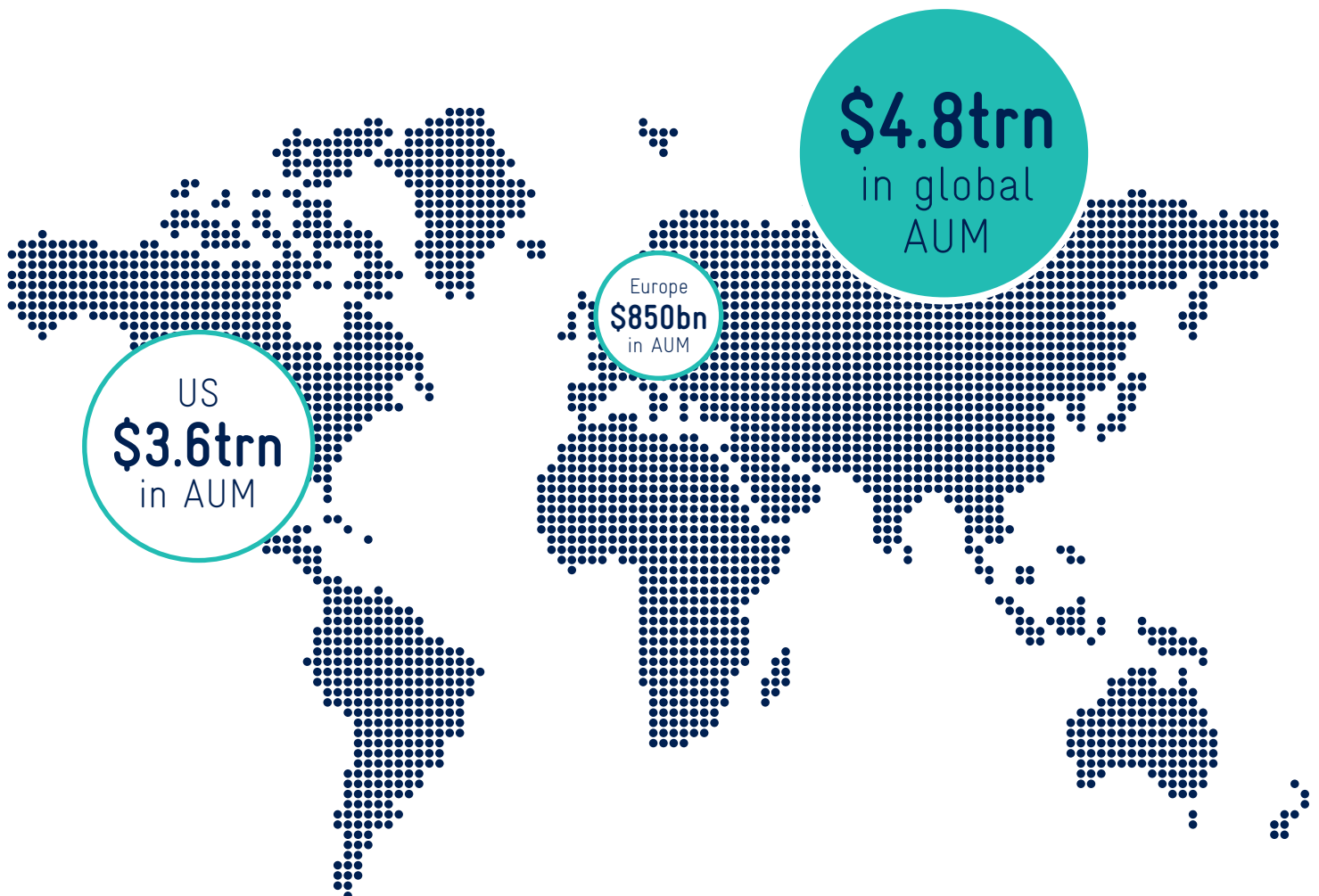
Should you need further assistance then please feel free to reach out to your usual Investment Association contact. We thank Dechert LLP for its assistance in the review of this guide.

THE ETF LANDSCAPE

ETFs were first introduced approximately 25 years ago in Canada and the United States. Since then they have grown into a major portion of global capital markets, representing \$4.8 trillion in global Assets Under Management (AUM)¹. This is up from just \$417bn in 2005².

The US remains the largest regional ETF market, with approximately \$3.65 trillion in AUM as of January 2018. Europe is the second largest ETF market, with approximate AUM of \$850bn, followed by the Japanese and Asia-Pacific markets. Canada, Latin America, South Africa and the Middle East also offer investors a variety of ETF products.

Equity-based ETFs make up a considerable majority of ETF products. However Fixed Income-based ETFs have grown significantly in recent years and now form a very material part of the market.



¹ BlackRock Global Business Intelligence, as of 31 March 2018
² EY's Global ETF Research 2017 report

WHAT IS AN ETF?

An exchange-traded fund (“ETF”) is an investment fund (commonly aiming to track an index) where shares in the investment fund are traded on a stock exchange(s) and can be bought or sold by investors at the current market price throughout trading hours (i.e. it allows for “intra-day” trading).

Typically, shares in an ETF itself may only be directly subscribed for or redeemed with the ETF itself through an intermediary financial institution known as an Authorised Participant (“AP”). Subscriptions and redemptions of an ETF are usually effected in large blocks of shares known as “baskets” by APs. Alongside the official market makers for an ETF, APs will make markets in and distribute the ETF within the secondary market (i.e. the stock exchange), through which investors (including retail investors) may buy and

sell shares in the ETF. This differs from traditional investment funds which may only provide for direct subscriptions and redemptions of their shares on a periodic basis based on their net asset value (“NAV”) and so do not normally provide for intra-day trading.

Though similarly named, ETFs should not be confused with other forms of exchange traded products (ETPs), such as exchange traded notes (“ETNs”) or exchange traded commodities (“ETCs”). ETPs, which are also traded on exchange, are subject to different regulatory frameworks compared to ETFs and often would carry differing structural and risk characteristics to that of an ETF.



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HOW ARE ETFs REGULATED IN EUROPE

ETFs in Europe may be established either in compliance with the Undertakings for Collective Investment in Transferable Securities (“UCITS”) directive, in which case they must then be identified with the “UCITS ETFs” label in their name; or the alternative investment managers’ directive (“AIFMD”). Very many of the ETFs established in Europe are UCITS ETFs; consequently they benefit from, and are subject to, the robust regulatory environment and safeguards which comes from the UCITS directive.

European ETFs are often subject to a wide variety of laws and regulation, ranging from rules regarding their establishment and daily operations to regulations relating to the use of benchmarks and finally laws setting out how ETFs may be marketed, distributed and sold across Europe.

European regulation allows UCITS ETFs to track an index (as a passive strategy) or an active strategy. Nevertheless most of European ETFs follow an index-based strategy and active ETFs are not so popular.

Together, these set out provisions relating to the following for an ETF established and sold in Europe:

- » Eligibility requirements for inclusion in a UCITS ETF portfolio, assets diversification rules and limitations on illiquid assets
- » Diversification rules for indices used by a UCITS ETF
- » Regulations for ETFs using Benchmarks to track an index

- » Risk management and tolerance levels for UCITS ETFs, including guidance related to managing counterparty risk and conflicts of interests
- » Collateral management
- » Ability to redeem UCITS ETF on the primary market at NAV if the secondary market is no longer available (e.g. if an AP defaults)
- » Disclosure and reporting requirements for UCITS ETFs and ETFs, including specific requirements for active ETFs.

In addition, physical European ETFs will benefit from regulatory safeguards created by the Securities Financial Transactions Regulation (SFT Regulation), which provides greater information on securities lending and OTC derivatives trades. For synthetic ETFs, the EMIR regulation limits the risk linked to OTC derivatives, with central clearing for some derivatives and/or risk mitigation techniques for others.

Each individual ETF will also be subject to the appropriate exchange rules in each jurisdiction in which the ETF is listed.

There has also been scrutiny applied on ETFs more generally at a global level, including the publication of the International Organization of Securities Commissions (“IOSCO”) Principles for the Regulation of Exchange Traded Funds in 2013.

³ This includes, as applicable, adherence to: the UCITS Directive, the Eligible Assets Directive, the Prospectus Directive, the Benchmark Regulation and MiFID II. In addition, specific guidance has been provided for UCITS ETFs by ESMA’s Guidelines on ETFs and other UCITS Issues.

WHAT IS THE SOURCE OF PROFIT AND THE RISK OF LOSS?

THE PRINCIPAL WAY OF GENERATING RETURNS – ETF INDEX REPLICATION

ETFs will typically look to track an index. It is the performance of that index which provides the broad nature of the investors' experiences of gains or losses. There are three ways in which ETFs can look to replicate an index. As with any investment, indices can go down as well as up and so tracking an index may lead to losses.

Full physical replication

All securities within an index are purchased according to their weightings, in order to ensure a minimal tracking error. This method may not be possible for illiquid indexes, and may be costly where an index consists of a large number of securities. As a result physical replication is used mostly for liquid and/or narrowly defined indexes.

Physical ETFs may also carry out securities lending, which generates incomes for the fund but creates some counterparty risk. A strict securities lending policy (with an appropriate counterparties and collateral management) is required at those ETFs in order to appropriately manage such risk.

Optimised physical replication

This replication is also called as "sampling replication". This is where a limited number of securities are considered, in order to create an ETF that broadly reflects, but does not fully track, a given index. There will be inevitable tracking error using this method, but optimisation looks to ensure that these deviations are low and controlled while looking to eliminate economically unattractive securities. This method is used mostly for indexes with illiquid investments and broad-based indexes.

So-called "optimised" physical ETFs may also carry out securities lending, which generates incomes for the fund but creates some counterparty risk. A strict securities lending policy (with an appropriate counterparties and collateral management) is required at those ETFs to appropriately manage such risk.





Synthetic replication

Known also as “unfunded swap-based ETFs”, synthetic replication involves the use of derivatives, such as total return swaps. Under this structure the ETF uses the investor’s cash to buy a “substitute basket” of securities. The fund simultaneously enters into one or several swap agreements with one or several counterparties that commit to deliver the reference index’s performance (plus securities lending revenues gained on the lending of the index components, less swap fees if any) in exchange for the performance of the securities purchased and subsequently held by the fund.

Synthetic ETFs do not lend their assets but they generate counterparty risk through the use of the swaps (from their reliance on the bank counterparties remaining solvent and able to meet their obligations under the swap contracts). Controls at these ETFs are designed to appropriately manage such counterparty risk.

OTHER WAYS OF GENERATING RETURNS – SECURITIES LENDING

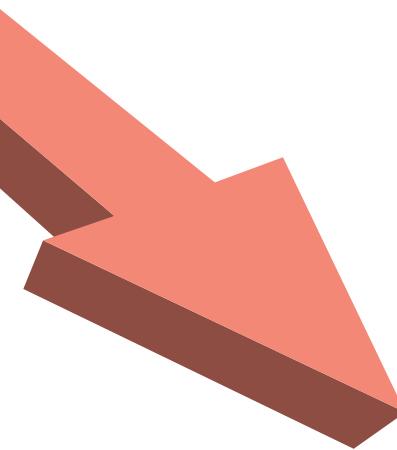
ETFs will sometimes engage in securities lending, wherein securities held by the ETF are loaned to another investor or firm. Securities are commonly lent temporarily to other market participants who may need them for a variety of their own reasons.

A market participant needing shares or other securities may approach an ETF to borrow them temporarily. In return, the ETF will receive a fee, and a borrower must also post collateral. The ETF will often receive payments equal to the dividends received over the security during the time it is held by the borrower.

Securities lending can generate significant revenue for an ETF. This income generated is typically used to offset the index replication costs and thus allows the fund to have a performance as close as possible to the benchmark index. Nonetheless, ETF securities lending does bring with it counterparty risk, in the event that a borrower defaults in returning the securities at the end of the loan period.

ACTIVE ETFs

Whilst historically ETFs tracked well-known indices, there are some ETFs in which a portfolio manager will exercise discretion over what to buy or sell, outside of following an index. These actively managed funds are presently a minority; current regulatory debate is over the extent to which active ETFs should reveal their holdings on a daily basis (see below), many active ETFs do.



KEY CHARACTERISTICS FOR INVESTORS

1. TRANSPARENCY



ETFs have a clear investment objective and transparency of unit price; along with continuous trading this can be helpful to some investors during volatile market conditions.

2. COST-EFFECTIVENESS



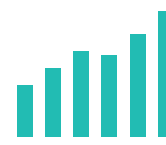
ETFs aim to offer investors a cost-effective route to diversified market exposure, not least because as with other collectives, an investor can benefit from scale management and lower transaction costs than could be expected were each underlying security bought by an individual. Investors have access to a diversified market exposure thanks to one trade. Most ETFs, although not all, also follow passive index-tracking strategies which will be reflected in their management fee levels. EU UCITS ETFs sold in the UK are subject to the same tax treatment as other EU UCITS funds sold here (though in all cases, for ETF or other funds, investors will need to consider the specific situation).

3. DIVERSIFICATION



ETFs aim to offer investors easy and immediate exposure to a basket or group of securities for diversification through a single trade. ETFs can also accommodate a broad range of asset classes, including equities, bonds, commodities and more. Historically ETFs commonly tracked major indices (mainly based on market capitalisations) Nowadays there is a wider range of indices based on single or multi “factors” (Smart Beta indices) to provide greater choice.

4. FLEXIBILITY



Because ETFs are tradeable on stock exchanges, investors can buy or sell ETF shares at any time during trading hours. As a result ETFs provide a level of flexibility distinctive from more traditional mutual funds which have once-a-day trading. Due to the investor usually being able to trade on the market with willing buyers and sellers, ETFs themselves do not require notification of large investments or withdrawals, or holding period commitments or minimum fees, so reducing other economic costs that might reduce the value of an investor’s holding. Finally, ETFs can be created or redeemed by APs delivering or receiving baskets of securities, which may provide additional investment options, though investors invariably realise their investments by trading on the secondary market and not by redeeming with the fund – this is more for market makers.



5. LIQUIDITY



ETFs could be described as offering three levels of liquidity:

1. Traditional liquidity as measured by secondary market trading volume. It is the most visible source of the ETF liquidity but it may reflect only a small part of the liquidity. ETFs with high transaction volumes may at times exhibit greater secondary market liquidity than their underlying holdings.
2. The liquidity that is measured by the block trades negotiated by market makers and APs on secondary market that does not go through the exchange/on-screen. Authorised participants post bid-and-offer prices on the exchange, enhancing liquidity still further. As APs typically only display a small fraction of the volume they are willing to trade, secondary market ETF liquidity is often far deeper than it initially appears.
3. Finally there is the liquidity offered by unit creation based on the underlying securities through the creation/redemption mechanism. This is the so-called liquidity of the index that is equal to the liquidity of the index components. It is the biggest source of liquidity. APs can offset an increase in demand by creating more units, or offset a decrease in demand by redeeming units. As long as there is enough liquidity on the ETF underlying components, new ETF shares can be created through the creation/redemption mechanism.

However there are risks to liquidity arising from the use of APs and the fact that prices for the shares in ETFs can move away from the underlying net asset value of the share as calculated daily – though arbitrage activity can be expected to correct this. Given the continuous trading that can occur in their shares, ETFs aim to provide an additive level of liquidity compared to that normally offered by mutual funds. Whilst in commonly experienced market conditions, the dealing mechanism aims to provide the level of liquidity that investors might want from a continuously traded investment, liquidity can never be guaranteed.

KEY RISKS OF ETFs

There are risks associated with ETFs, as for any other investment product. Those risks are linked to the index components: for example market, currency, counterparty, credit, interest rate, liquidity, replication, operational risk etc. All risks related to the ETF are disclosed and explained in the ETF legal documentation.

Like other traditional funds, during stressed market conditions, it is possible that the basket of underlying securities may no longer be readily tradable. In extreme circumstances there may be incidences where it becomes necessary for the ETF to become 'closed-ended' (meaning it is not creating new shares or redeeming old ones) until market conditions return to normal or the fund can be liquidated. Short and leveraged ETFs bring their own particular risks as well.

As listed products, spreads may widen during period of market volatility, and the value of an ETF investment may go down as well as up.

ANNEX –

BUY AND SELLING SHARES IN AN ETF THE ROLE OF AN AUTHORISED PARTICIPANT (AP)

The main role of the AP is to interact directly with the ETF provider to create and redeem units within the ETF – this is known as primary market trading.

Most APs will facilitate creations or redemptions on behalf of clients. The trades can also be on behalf of market makers who provide pricing and liquidity on exchange – this is known as secondary market trading.

APs can be financial institutions or market makers. An AP does not have to be a market maker and a market maker does not need to be an AP. Generally you will find that most market makers are APs as they will need to create and redeem in the primary market after trading in the secondary market; for example if they go short the ETF and have to create to cover the short position.

CREATIONS AND REDEMPTIONS

A key feature of ETFs is the creation and redemption mechanism, the primary market activity which allows ETFs to grow or contract based on investor demand.

ETF shares are created when an AP supplies cash or a specified basket of securities (known as the 'creation basket') to the ETF issuer and receives a specified number of ETF shares, known as a 'creation unit', in return. The AP can then sell ETFs on the secondary market.

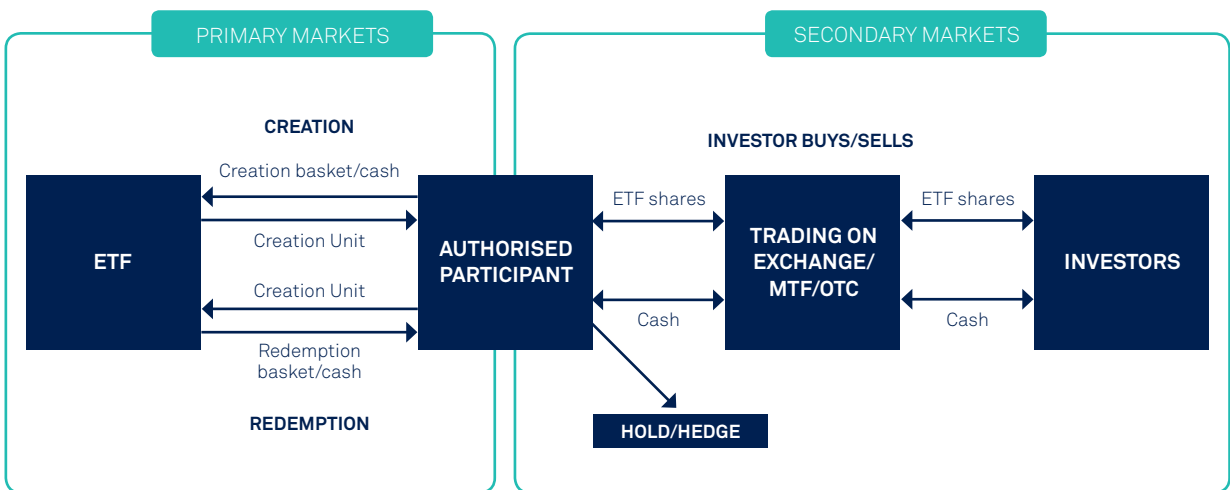
The redemption process is the reverse transaction. The AP returns the creation unit to the ETF, and in return receives a 'redemption basket' or cash. The value of the redemption basket will be equivalent to the value of the creation unit based on the ETF's end-of-day NAV.

As well as providing additive liquidity, the creation/redemption mechanism helps keep the market price of an ETF close to its NAV. This is because if an ETF share is trading at a premium or discount, it offers an arbitrage opportunity to APs.

If an ETF is trading at a premium to its NAV, the AP can buy the ETF's underlying securities, supply them as a creation basket to an ETF issuer, receive a creation unit of ETF shares, and sell those shares in the secondary market for a profit. In turn this will help bring the ETF's secondary market price back in line with its NAV.

If an ETF's shares are trading at a discount to its NAV, the AP can do the reverse, by selling the ETF's constituent securities, buying ETF shares in the open market, and then returning the shares to the fund in exchange for the redemption basket of securities and/or cash. This also brings the ETFs price back in line with the NAV.

FIGURE 1: CREATION AND REDEMPTION PROCESS, AND INTERPLAY BETWEEN PRIMARY AND SECONDARY MARKETS





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