

# **EXCHANGE-TRADED FUNDS**

---

**MADE SIMPLE GUIDE**



#### ACKNOWLEDGEMENTS

We would like to thank iShares for its help producing and sponsoring this guide.

**iShares**<sup>®</sup>  
by **BLACKROCK**<sup>®</sup>

This guide is for information only.  
It is not investment advice.

Published by the Pensions and Lifetime Savings Association 2016  
© First published: October 2016

# FOREWORD

WITH INCREASING PRESSURE ON COSTS IN A LOW RETURN WORLD, MANY PENSION SCHEMES ARE REVIEWING THE PRODUCTS THEY HOLD TO ENSURE THAT THEY GET THE BEST VALUE FOR MONEY FOR THEIR MEMBERS. IN THIS CONTEXT, INDEX INVESTMENT VEHICLES, INCLUDING EXCHANGE-TRADED FUNDS (ETFs), ARE INCREASING IN POPULARITY.

The purpose of this guide is to increase pension fund trustees' awareness of the key characteristics of ETFs and what ETFs might offer. We have drawn upon our own experiences with our clients – as iShares, part of BlackRock, the largest global provider of ETFs – in order to provide examples of how pension funds are using ETFs for a wide range of portfolio purposes.

We are seeing pension funds and consultants use ETFs for both strategic and tactical reasons because of the transparent and liquid access that ETFs can offer to a broad range of asset classes. Assets covered include alternative assets, such as property, as well as an extensive range of equity exposures, e.g. industry sectors, single developed equity markets, emerging market equities by both region and by country. Bond indices are also well-represented, with ETFs covering most sub-sectors of the fixed income market. Going forward, we expect that ETF use will be driven by innovative products continuing to come to market, and by investors becoming ever more familiar with the investment applications of ETFs.

We also put forward a framework to help pension fund trustees evaluate ETFs versus other products such as index funds. Index funds remain the most common index vehicle for pension funds, however, in some cases – and for certain investment timeframes – ETFs can be cheaper to buy and sell than index funds. We hope that outlining the characteristics, benefits and breadth of range of ETFs within the indexing investment universe, can help you in discussions with your scheme advisers on what instruments to use to fulfil the investment objectives of your fund.

## ASHLEY FAGAN

Director of iShares – institutional client business

BlackRock

# CONTENTS

<b>Introduction</b>	<b>5</b>
<b>1 What is an ETF?</b>	<b>6</b>
1.1 What exactly is an ETF?	6
1.2 What benefits do ETFs offer?	6
1.3 What are the different types of ETFs?	7
1.4 How can investors access ETFs?	8
1.5 Total cost of ownership (TCO) and worked example	8
<b>2 How do we see pension funds using ETFs today?</b>	<b>10</b>
2.1 How can ETFs provide access to fixed income markets?	10
2.2 Can ETFs help in cash management?	10
2.3 How can ETFs be used for strategic asset allocation?	10
2.4 Is transition management a common usage of ETFs?	11
2.5 Are alternative asset classes accessible via ETFs?	11
2.6 Are clients using ETFs in place of other instruments to access market indices?	11
2.7 Has the ETF universe expanded beyond market capitalisation indices?	12
2.8 Overview of ETF use (Greenwich survey)	12
<b>3 Which product should be selected for an index investment?</b>	<b>13</b>
3.1 How can trustees identify which product to use for their index investment?	13
3.2 How can trustees carry out due diligence on ETFs?	16
<b>Conclusion</b>	<b>18</b>

# INTRODUCTION

## CHALLENGING TIMES FOR PENSION FUND MANAGERS AND TRUSTEES

**WE HAVE SEEN LOW INTEREST RATES IN MOST MAJOR DEVELOPED ECONOMIES FOR SEVERAL YEARS AS WELL AS RECENT EXTREME FINANCIAL MARKET VOLATILITY.**

Other considerations have included the transition from defined benefit (DB) to defined contribution (DC) schemes and the relatively recent advent of ‘pension freedoms’ in the UK. The long term impact on pension funds of the UK’s decision to leave the EU is unclear and may take several years to clarify.

The financial crisis drove the need for greater diversification across investments, with pension funds seeking to identify sources of income while looking to manage and monitor risk more carefully than ever before. With increasing pressures on costs in a low return world, many schemes are reviewing the financial products they use to ensure that they are getting the best value for money. Active products have been reviewed too, to see if traditional active investments could be replaced, in some instances, with other potentially lower cost ways to access the same underlying assets, for example, through the use of an index investment vehicle. The landscape for index investments has evolved rapidly. Today there can be value to be added – and costs to be saved – by picking the index investment vehicle which is appropriate for your investment goal.

## A CONSTANTLY BROADENING PRODUCT UNIVERSE FOR INDEX INVESTMENTS

**ACTIVE VERSUS PASSIVE INVESTING WILL NO DOUBT REMAIN A TOPIC OF DEBATE FOR YEARS TO COME FOR THE INVESTMENT COMMUNITY.**

In terms of risk and return, the outperformance of an index is generally described as generating ‘alpha’. In general, only active investment strategies generate alpha rather than those which track an index. We look at risk, defined as the tracking error – (how far a portfolio deviates from the index benchmark used to evaluate and monitor the fund manager’s performance). We would expect to see a high/visible tracking error for an active fund. This is because an active fund normally contains a relatively limited number of constituents that have been selected from a far wider investment universe. This is what would hopefully lead to alpha generation.

Passive investments, meanwhile, involve vehicles that track an index, so we would expect to see a low tracking error (risk) versus the index. Traditional passive investments,

sometimes referred to as ‘beta generating’, seek to replicate the performance of the index you want to invest in. By doing this they thereby generate ‘beta’, ie the performance of the index (minus fees). A wide range of beta investment products are available, including ETFs and index funds. These passive instruments are increasingly being seen as a cost-effective and transparent way for investors to gain access to a wide range of assets.

In this guide, we outline the characteristics, benefits and breadth of range of the ETF offering within the index investment universe to help you in discussions with your scheme advisers on what instruments can be used to fulfil the investment objectives of your fund.

## THE GROWTH OF INDEXING

**INDEX INVESTING HAS SEEN HUGE GROWTH OVER THE LAST FEW YEARS – SINCE 2007, IN TERMS OF ASSETS UNDER MANAGEMENT (AUM), ON A GLOBAL BASIS, INDEX FUNDS AND ETFs HAVE GROWN BY 207% AND 402% RESPECTIVELY.**

In comparison, during the same period, assets in active funds have increased by 74%<sup>1</sup>. By 2020, the global industry assets under management of ETFs are expected to more than double to over \$5 trillion<sup>2</sup>. Their increasing usage by institutional and retail investors is most advanced in the US. Despite this, in 15 years, from a standing start, European-domiciled ETFs have now grown to \$529 billion in assets under management<sup>3</sup>.

Within indexing, ETFs are increasingly recognised for their structural benefits which include low costs, transparency and access to a broad range of asset classes via a fund traded on a stock exchange. The ability to achieve diversification at a reasonable cost is also frequently mentioned.

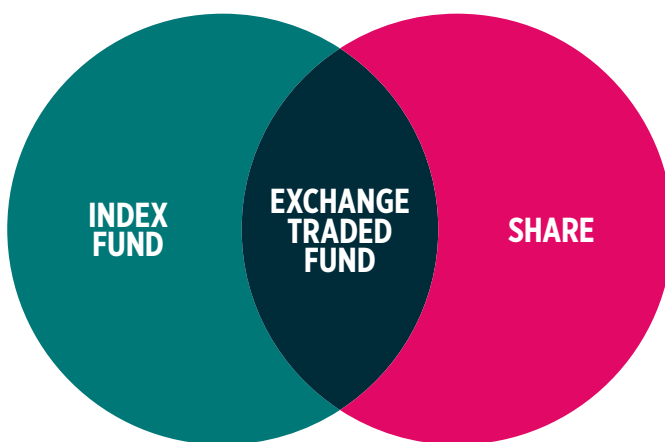
<sup>1</sup> Source: Morningstar, as of 31 December 2015 and 29 February 2016. Note: Fund categories include open-end mutual funds (excluding money market funds and fund of funds) and exchange traded funds (ETFs) domiciled in the US and in Europe, offered to both retail and institutional investors.

<sup>2</sup> Source: PriceWaterhouseCoopers, ETF 2020: Preparing for a new horizon. Based on the projections of more than three out of four survey participants. January 2015.

<sup>3</sup> Source: BlackRock, ETP Landscape as at end May 2016.

# 1 WHAT IS AN ETF?

## 1. WHAT EXACTLY IS AN ETF?



**Figure 1: what is an ETF?**

Source: BlackRock, June 2016. For illustrative purposes only.

**AN ETF IS AN INVESTMENT FUND, TRADED ON A STOCK EXCHANGE, AIMING TO TRACK THE PERFORMANCE OF A SPECIFIED INDEX AND TO PROVIDE INVESTORS WITH THE SAME RETURN AS THAT OF THE INDEX, MINUS FEES.**

ETFs share many characteristics of index funds. Both have similar ways of replicating the underlying index, depending on the benchmark. The providers offering both products usually take the same decisions as to how and to what extent to replicate their index and both often share fund management teams and risk oversight.

ETFs also share characteristics with individual stocks, as shown in Figure 1. ETFs, unlike index funds, trade on an exchange. ETF units can also be purchased on exchange, known as the 'secondary market'. It may be cheaper to buy and sell ETF units in this secondary market than to buy and sell the individual securities that make up the index tracked by the ETF – leading to potential trading cost efficiencies. ETFs offer investors an additional layer of liquidity compared to standard index funds through this secondary market.

ETFs fall within a category of investments called Exchange Traded Products (ETPs) and are by far the largest group in terms of the number of products and assets under management. Other examples of ETPs include various investment vehicles such as Exchange Traded Commodities (ETCs) and Exchange Traded Notes (ETNs). Of particular

importance is that ETFs are funds and most of Europe's ETFs are open-ended collective investment schemes regulated in accordance with the region's UCITS regime. UCITS rules instruct funds to invest in certain categories of eligible assets, set minimum diversification requirements, and separate the functions of fund depository (custodian) and auditor from that of the manager/issuer.

## 1.2 WHAT BENEFITS DO ETFs OFFER?

**BROADLY SPEAKING, THE BENEFITS THAT ETFs<sup>4</sup> OFFER FALL INTO FIVE MAIN CATEGORIES.**

- 1. Flexibility:** There is a place for ETFs in both tactical and strategic asset allocation.
- 2. Liquidity:** ETFs are listed on exchanges and can be traded at any time the market is open. An ETF is at least as liquid as its underlying securities.
- 3. Diversification:** At fund level: accessing the entire index in just one trade. At a portfolio level: ETFs cover a full spectrum of asset classes including equities, bonds, commodities, investment themes etc.
- 4. Cost effectiveness:** ETFs often offer a cost-effective route to diversified market exposure.
- 5. Transparency:** Clear and defined investment objectives. Daily disclosure of underlying securities. Explicit Total Expense Ratio (TER).

Please note that the above benefits apply to physically-backed ETFs – other structures of ETFs are also available which may not offer all of these benefits. Please see section 1.3/- for more details.

ETFs have seen an extraordinary rate of growth over the last 15 years in Europe, as index investing has gathered momentum. In essence, we believe that ETFs have come of age for institutional investors in the UK. One positive driver of ETF usage is that, as the industry matures, the costs of ETFs for investors are coming down. Total expense ratios (TER) are decreasing due to increased competition, ETF providers lowering their management fees, and the funds increasing in size. The latter trend enables the manager to spread the fixed components of expenses (eg administration and custody fees) across a greater number of shares.

<sup>4</sup> The benefits apply to physically-backed ETFs – other structures are available. Please see section 1.3/- for more details.

The cost of trading an ETF can often be considerably lower than that of purchasing the underlying constituents of the index. The differences can be particularly pronounced in fixed income, where the primary market has been experiencing liquidity challenges for some time and where a number of indices have hundreds of constituents.

ETF costs of trading have also been coming down because, as ETFs become more popular, the volume available in the secondary market, for certain funds, has grown. This, in turn, has had a positive impact on bid-offer spreads which have been decreasing as a result.

### 1.3 WHAT ARE THE DIFFERENT TYPES OF ETFs?

#### THERE ARE TWO MAIN TYPES OF ETF STRUCTURES – PHYSICALLY-REPLICATING ETFs AND DERIVATIVE-REPLICATING ETFs.

**Physically-replicating ETFs** hold the constituents of the index being tracked, in much the same way an index fund would. There are two tracking techniques:

- ▶ Full replication, where all the constituents are held in the weightings defined by the index.
- ▶ Sampling replication (optimisation), where a selection of the index constituents is held (in the case of a large index for which full replication would be costly and less efficient).

**Derivative-replicating ETFs** deliver the performance of an index through the use of derivatives (usually total return index swaps) with counterparties such as investment banks.

- ▶ Under the swap agreement, the counterparty promises to pay the return on the index to the ETF provider in exchange for the return on a basket of securities which the ETF provider owns (normally prescribed by the swap counterparty).
- ▶ Structures of derivative-replicating ETFs and their associated levels of counterparty risk can vary across funds and providers.

There are a number of criteria which investors should consider when it comes to assessing an ETF's structure. Depending on how ETFs are managed, physically-replicating ETFs may have lower counterparty risk and better transparency than derivative-replicating ETFs. A key benefit of physically-replicating ETFs is that, typically, a full

disclosure of their holdings is available to investors on a daily basis ensuring a high level of transparency.

We mentioned that there are other types of Exchange-Traded Products (ETPs) available alongside ETFs. Below we sum up the characteristics of Exchange Traded Notes (ETNs) and Exchange Traded Commodities (ETCs).

#### Exchange Traded Notes (ETNs)

- ▶ These are not investment funds.
- ▶ They are debt obligations issued by banks for a fixed term in order to raise money.
- ▶ Investors are promised a payment at maturity linked to the performance of a corresponding index, minus fees.
- ▶ Investors can sell their holdings on the stock market before maturity.
- ▶ The issuing bank may offer redemptions (buying back the holdings) at regular intervals.
- ▶ ETNs expose investors to two types of risk:
  - The credit risk of the issuing bank.
  - The market risk of the selected index.
- ▶ ETNs may not have the usual protections of ETFs, such as the independent custody of assets, segregation of liability, diversified exposure and independent oversight.

#### Exchange Traded Commodities (ETCs)

- ▶ These are debt securities.
- ▶ They can be either physically-backed or derivative-based.
- ▶ Physical ETCs will track the daily movement of the spot price of the relevant commodity by actually buying the asset.

## 1.4 HOW CAN INVESTORS ACCESS ETFs?

**ETFs CAN BE BOUGHT AND SOLD LIKE INDIVIDUAL SHARES VIA REGULATED STOCK EXCHANGES DURING EXCHANGE TRADING HOURS USING A STOCKBROKER.**

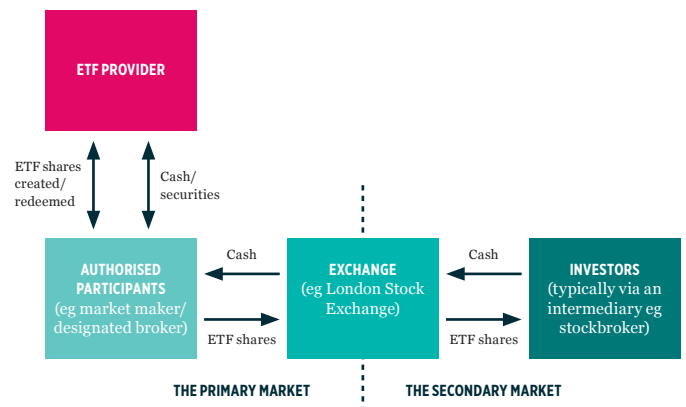
Some pension funds do not have broker accounts, however, buying an ETF is still a relatively straightforward process which can be completed through a custodian. Custody banks such as BNY Mellon, HSBC, J.P. Morgan, Northern Trust and State Street may be able to facilitate the transaction for those institutional clients who do not have broker accounts. For schemes without a custodian, bundled options exist whereby a counterparty is able to offer brokerage and custodial services in combination.

Unlike traditional pooled funds, ETFs have an additional layer of liquidity as they trade on two markets – the primary market and the secondary market. Given the large size of an average trade, liquidity – or how easily an investment can be bought and sold – is critical for pension funds.

**Primary market:** The primary market, also known as the underlying market, is the same market through which other index vehicles, such as index funds or segregated mandates, are created. ETFs in Europe are open-ended funds and do not have a fixed number of shares. This means that shares of the funds can be created or redeemed on-demand directly from an ETF provider by authorised participants (APs), who typically are large investment banks.

New ETF shares come into being by a process called ‘creation’. Authorised Participants liaise directly with the ETF provider in the primary market to exchange either the securities that make up the index (‘securities in kind’) in the proportion of the existing holdings of the fund, or cash for large blocks of ETF shares known as ‘creation units’.

The ETF shares are then sold to investors in a secondary market – such as the London Stock Exchange – just like conventional shares.



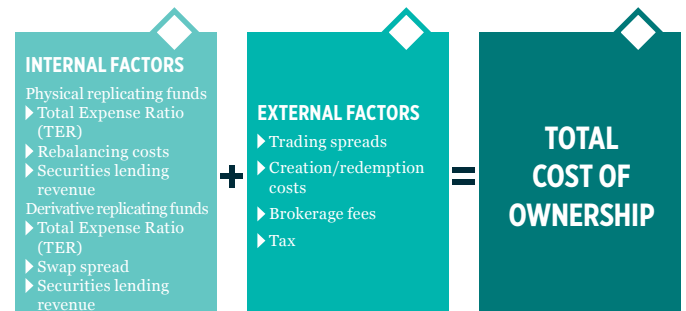
**Figure 2: Primary and secondary market for ETFs**

**Secondary market:** This involves the trading of ETF shares on either stock exchanges or over the counter via a market maker who has an inventory of previously created ETF units. Prices of ETFs in the secondary market are influenced by demand and supply factors and market movements.

## 1.5 TOTAL COST OF OWNERSHIP (TCO) AND WORKED EXAMPLE

**REGARDLESS OF WHICH INSTRUMENT IS SELECTED, IN ANY INVESTMENT DECISION, UNDERSTANDING THE TOTAL COST OF OWNERSHIP (TCO) IS AS IMPORTANT AS CONSIDERING THE RISK AND EXPECTED RETURN OF AN INVESTMENT.**

This approach takes account of explicit and implicit charges, as well as additional sources of return, such as securities lending revenue for ETFs. The TCO is calculated by adding all the costs of an ETF and subtracting all the revenues generated over the same time period. It considers both internal and external costs (see figure 3 below).



**Figure 3: ETF Total cost of ownership (TCO)**

Source: BlackRock, July 2016



Internal factors include both costs to the fund and revenues received by the fund for the same time period.

These internal factors include the Total Expense Ratio (TER), rebalancing costs and any securities lending revenue generated. The TER represents the cost of holding an ETF investment for one year. The TER covers the annual costs relating to fund management (such as custody, the cost of the provider licensing the index, etc.).

#### TCO WORKED EXAMPLE FOR ETFs AND INDEX FUNDS

Depending on the exposure and investment size there are occasions where ETFs can be a more suitable investment vehicle for investors with a short to medium term holding period (eg under two years) and where index funds can be a preferred vehicle for longer term investment. While this has been the general rule, we have sometimes seen ETFs being more cost efficient over longer periods, depending on the exposure. ETFs can also offer an efficient solution for exposures where index funds are not available.

We are often asked by pension fund clients to consider whether a specific index exposure is more cost-effective for them via an ETF or an index fund – depending on their specific investment timeframe. We then put together a TCO analysis of the funds that the client could use in order to illustrate the different costs. An example of such analysis which we carried out for a client interested in emerging market (EM) equities is shown in Figure 4.

For emerging market (EM) equities exposure the client had considered two ETFs and one index fund. ETF 1 had a low TER but was more expensive to buy and sell – making it better for a long term ‘strategic’ holding. ETF 2 had a higher TER but was cheaper to buy and sell. We referred to it as a ‘tactical’ holding, more useful for a shorter time frame, in this case for up to two months which could be useful for transition management. The index fund had a mid-range TER but had significantly higher purchase and sales costs – resulting in the highest 12 months TCO.

For both ETFs, transaction costs were lower than those of the index fund as the investor was able to trade in the secondary market instead of only the primary market where the index fund is traded.

External factors are costs to the investor, deducted at the time of purchase and sale of an ETF, and include trading or creation/redemption costs along with brokerage fees and taxes. Trading costs are reflected in the bid/ask spread when buying an ETF in the secondary market (ie on-exchange or OTC).

**Figure 4: Example of cost comparison for an index fund and two ETFs**

COSTS OVER 12 MONTHS	ETF 1: STRATEGIC EM EQUITY ETF	ETF 2: TACTICAL EM EQUITY ETF	EM EQUITY INDEX FUND:
TER (%)	0.25%	0.75%	0.41%
Est. purchase cost (%)	0.11%	0.04%	0.30%
Est. sale cost (%)	0.11%	0.04%	0.35%
Annual security lending income (%)	-0.04%	-0.08%	-0.07%
Portfolio level WHT impact versus net benchmark	-0.03%	-0.03%	-0.03%
Total cost	0.40%	0.73%	0.96%

# 2 HOW DO WE SEE PENSION FUNDS USING ETFs TODAY?

**WHEN UK PENSION FUNDS FIRST STARTED TO USE ETFs, IT WAS LARGELY TO PROVIDE INTERIM EXPOSURE AS PART OF A TRANSITION BETWEEN ASSET MANAGERS.**

In such cases, ETFs could provide cost-efficient market exposure while an investment consultant sought out a new manager. The reasons for using ETFs have now moved on considerably. In this section we will take you through some of the usages we see today.

## 2.1 HOW CAN ETFs PROVIDE ACCESS TO FIXED INCOME MARKETS?

**LIQUIDITY IN BOND (OR FIXED INCOME) MARKETS HAS BECOME CHALLENGING IN RECENT YEARS. TRANSACTION COSTS ARE NOW A SIGNIFICANT PORTION OF THE TCO, AND THERE CAN BE DIFFICULTIES INVOLVED IN SOURCING THE UNDERLYING BONDS.**

Bond ETFs offer immediate diversification across hundreds of bonds in a single transaction. They can be used alongside an existing portfolio to enhance diversification, or as an interim investment while the fund manager is waiting for new bond issues to come to market. Additionally, benefitting from diversity of ETF exposures, they can provide access to niche fixed income sub-sectors such as high yield and emerging markets.

In today's low-yield environment, institutional investors are increasingly using ETFs to capture additional returns when opportunities arise, ie taking a more tactical approach. Bond ETFs are frequently used for putting large inflows to work quickly or meeting a large redemption. They can also be used as an efficient transition management tool or as a tool to build a fixed income portfolio.

Pension schemes may have to take action to reduce the risk in their holdings, perhaps as a result of external influences outside the control of the scheme, such as rising gilt yields, or falling expected inflation levels or because the flows into the scheme have changed. Some schemes have put triggers in place so that they know when to take action.

Due to the flexibility and liquidity that ETFs can offer, we have seen them increasingly used as a liquid cost-efficient tool as part of a trigger-based de-risking programme. This happens when a pension fund hits a de-risking trigger and uses ETFs as a way to implement a switch from equities to bonds.

## 2.2 CAN ETFs HELP IN CASH MANAGEMENT?

**TRADITIONALLY, PENSION FUND MANAGERS HAVE FOUND ETFs USEFUL FOR PORTFOLIO MANAGEMENT FUNCTIONS SUCH AS CASH FLOW MANAGEMENT.**

When faced with a large cash inflow or outflow, pension fund managers might not wish to disinvest or modify their core asset allocation.

We have seen pension funds use ETFs for cash management in two different ways:

1. When there are large and frequent cash flows in and out of the portfolio, substantial transaction costs associated with the entry/exit costs of trading individual positions in the underlying market could be incurred. A liquidity 'sleeve' or buffer of ETFs can be used which consists of ETFs representing the asset allocation strategy of the scheme. The buffer can help minimise the transaction costs, and assist in rebalancing the portfolio back in line with its targeted asset allocation.
2. When there is a cash position within the portfolio, investment in short duration bond ETFs instead of traditional cash investments can offer the potential for an increase in yield while maintaining liquidity.

## 2.3 HOW CAN ETFs BE USED FOR STRATEGIC ASSET ALLOCATION?

**MANY PENSION FUNDS USE ETFs TO IMPLEMENT DYNAMIC ASSET ALLOCATION AND TO DIVERSIFY THEIR PORTFOLIOS BY GAINING EXPOSURE TO NICHE MARKETS.**

The breadth and depth of the ETF marketplace ensures they can equally use these vehicles to enhance their strategic asset allocation strategies. ETFs can be used as building blocks in multi-asset solutions, to over- or underweight an asset class within a portfolio, to add an overlay to investments to obtain incremental yield, or to gain liquid exposure to an area that is difficult to invest in (ie as a completion tool).

Pension funds can also use ETFs to implement asset allocation adjustments. Asset class weights are fixed regularly for most pension funds, but there is often some flexibility versus the targeted allocation. For example, asset class weights may be allowed to fluctuate within a set band of plus or minus a fixed percentage of the target. This enables fund managers to position investments and capitalise on short to medium term opportunities. The low cost and operational

simplicity of ETFs ensure that they can be used to take advantage of these opportunities.

#### 2.4 IS TRANSITION MANAGEMENT A COMMON USAGE OF ETFs?

##### TRANSITION MANAGEMENT REMAINS A KEY USAGE OF ETFs BY UK PENSION FUNDS.

ETFs can be used as a means to reduce risk by retaining exposure to a specific market when funds are being transitioned from one asset manager to another – whether it be equity or fixed income assets. In a transition, a new portfolio can hold ETFs while investment ideas are being generated by the new manager. In addition, when an ETF holding is sold, a physically-replicated ETF offers the pension fund the opportunity to redeem in-kind. This means that the proceeds of the sale are not paid out in cash, but through a direct portfolio of the underlying assets. This portfolio can be delivered to the selected new asset manager without going through cash again, thereby reducing overall trading costs for the pension fund.

The choice of which index instrument to use during a transition depends on a number of factors, including whether the pension fund's holding period for an investment is short or medium term. For a short-term investment, the savings that ETFs can deliver in terms of trading costs are likely to out-weigh their potentially higher holding costs (driven by TER) when compared to other index vehicles, such as index funds.

#### **Example: Transition using an ETF:**

*A major UK pension fund client was seeking to invest £500m in an interim emerging market equity exposure while moving between two active managers. They decided to use an equity ETF as an efficient approach, both from a TCO perspective and for operational simplicity. As a result, the full exposure was obtained within one day in the required markets and the total cost of ownership was approximately £1.5m lower over the expected investment horizon when compared to an index fund or a segregated mandate.*

#### 2.5 ARE ALTERNATIVE ASSET CLASSES ACCESSIBLE VIA ETFs?

##### EXPOSURE TO ALTERNATIVE ASSETS AMONG UK PENSION FUNDS HAS BEEN INCREASING AS TRUSTEES AND CONSULTANTS HAVE LOOKED FOR SOURCES OF ADDITIONAL RETURNS IN PORTFOLIOS IN A LOW YIELD WORLD.

Property, for example, can generate long-term, inflation-linked cash flows and provide effective diversification from traditional assets.

ETFs provide liquid exposure to alternative markets such as property, infrastructure and precious metals. A challenge to the adoption of liquid alternatives has been their correlation with equity markets. This is particularly relevant for Real Estate Investment Trust (REIT) products for UK pension funds, while other aspects such as liquidity and low ongoing management cost have been compelling. This has led to the evolution of REIT indices by major index providers, such as MSCI. The MSCI indices aim to provide a risk return profile which is closer to that of a physical property investment while retaining the low cost and liquidity benefits traditionally associated with REIT-based products.

#### 2.6 ARE CLIENTS USING ETFs IN PLACE OF OTHER INSTRUMENTS TO ACCESS MARKET INDICES?

##### BETWEEN JUNE 2014 AND 2016, WE HAVE SEEN \$22 BILLION OF CLIENT SWITCHES OUT OF INDEX FUTURES AND OTHER FINANCIAL INSTRUMENT INTO ISHARES ETFs<sup>5</sup>.

ETFs are increasingly being considered as an alternative for equity index futures for fully-funded investors. This is because there have been several headwinds for futures, including new banking regulations put in place since the financial crisis, which has led to an increasing cost of funding for banks offering futures. The main catalyst of this increased cost to banks has been the implementation of regulatory frameworks such as Basel III and the Volcker Rule. For those investors looking to financial derivatives for index tracking, the costs of holding these instruments have therefore increased. Operational simplicity and increasing range of ETF exposures are other catalysts of the changing client preference.

<sup>5</sup> Source: BlackRock as at end June 2016.

### **Example: market indices**

*A UK pension fund moved approximately US\$700m from a basket of futures intended to track the performance of a broad developed and emerging market index and switched their exposure to a single ETF tracking this exposure. Moving to the ETF improved the tracking against the benchmark, reduced the governance and operational complexity of having to manage multiple futures positions and ultimately reduced the total cost for the client.*

## **2.7 HAS THE ETF UNIVERSE EXPANDED BEYOND MARKET CAPITALISATION INDICES?**

**THE ETF UNIVERSE HAS EVOLVED TO INCLUDE TRACKING INDICES THAT ARE NOT PURELY MARKET-CAPITALISATION WEIGHTED, INCLUDING FACTOR AND MINIMUM VOLATILITY INDICES, OFTEN REFERRED TO AS 'SMART BETA'.**

Traditional indices tend to be market cap weighted, providing a higher exposure to larger and more mature companies; this in itself can provide a higher exposure to certain factors. Factor investing enables pension funds to identify which factors they want to have exposure to and be more proactive about it.

Minimum volatility (MV) ETFs can be used by pension funds in volatile market conditions as they provide less volatile exposure to the underlying market than the standard indices with comparable exposures. For example, in the iShares MV strategies, the weights of a parent index constituents are linked to the stocks' realised volatility levels. By overweighting the least volatile stocks and underweighting the most volatile stocks and taking into consideration the correlations between stocks within the basket, an MV index is created. Minimum and maximum weight restrictions are applied to the stock, sector and country exposures to ensure that the characteristics of the MV index do not deviate too far from the parent index. This helps to avoid any unintended bias in the index to a particular industry or country.

Pension funds can also use ETFs to access factor investing, which seeks to identify and harvest broad, persistent drivers

of return. As clients decide on where to spend their 'active' risk budgets, many are thinking more broadly about the persistent risk and return factors which drive portfolios over the long term. Factors such as size, value, growth, momentum and minimum volatility tend to be the most frequently discussed, with multi-factor funds also gaining in popularity.

## **2.8 OVERVIEW OF ETF USE (GREENWICH SURVEY)**

**WE GAINED FURTHER INSIGHT INTO THE INCREASED USAGE OF ETFs BY INSTITUTIONAL INVESTORS AND THE WAYS IN WHICH THEY ARE USING THESE PRODUCTS FROM THE RESULTS OF THE FIFTH ETF SURVEY THAT BLACKROCK RECENTLY CARRIED OUT IN CONJUNCTION WITH GREENWICH ASSOCIATES<sup>6</sup>.**

The respondents included institutional funds (corporate and public pension funds, foundations and endowments), asset managers, insurance companies, investment consultants and advisers.

In the Greenwich survey, the most common ETF applications mentioned were:

<b>Making tactical adjustments to portfolios:</b>	<b>84%</b>
<b>Using ETFs for core allocations:</b>	<b>64%</b>
<b>Gaining international diversification:</b>	<b>64%</b>
<b>Rebalancing an existing portfolio:</b>	<b>55%</b>
<b>Putting cash to work within equity markets:</b>	<b>37%<sup>7</sup></b>

One of the drivers of growth for ETF flows identified by the survey was an increase in demand for bond (or fixed income) ETFs, which we believe will continue.

<sup>6</sup> Greenwich Associates 2015 Global Exchange Traded Funds Survey

<sup>7</sup> Source: Greenwich Associates 2015, U.S., European, Canadian and Asian Exchange-Traded Funds Studies.

# 3 WHICH PRODUCT SHOULD BE SELECTED FOR AN INDEX INVESTMENT?

---

## 3.1 HOW CAN TRUSTEES IDENTIFY WHICH PRODUCT TO USE FOR THEIR INDEX INVESTMENT?

**IN ORDER TO SELECT THE MOST APPROPRIATE VEHICLE IT IS IMPORTANT TO UNDERSTAND THEIR CHARACTERISTICS, BENEFITS AND RISK.**

We believe that there are seven key considerations to the selection of an index product. Here is a brief outline of each.

The table overleaf compares the characteristics of ETFs versus other commonly used products for index investing.



**Figure 5: Overview of index vehicles**

	PHYSICAL ETFs	SYNTHETIC ETFs	INDEX FUNDS
Legal structure	Varies, including UCITS funds (EU domicile), 40-Act Funds (US domicile)		
Capital (cash) investment	100%	100%	100%
Operational considerations	No maturity Do not require active management/ monitoring of the portfolio by the end investor Require custodial or brokerage account (ETFs)		
Cost	TER, rebalancing costs; access costs.	TER, swap spread; access costs.	TER/OCF, rebalancing costs; access costs.
<b>RISKS</b>			
1. Diversification risk	Low	Low	Low
2. Counterparty risk	No/Minimal <sup>1</sup>	Minimal	No/Minimal <sup>1</sup>
3. Liquidity risk	Low, generally multiple dealers	Low, generally multiple dealers	Low, through the fund company
4. Pricing risk	Low, intraday	Low, intraday	Medium, normally once a day
Key advantages	Wide range of exposures	Wide range of exposures	Exposure to traditional benchmarks
	On-exchange liquidity	On-exchange liquidity	Low cost beta
	Low cost beta		

Source: BlackRock as at 30 June 2016

<sup>1</sup> For physically replicated ETFs, index funds, segregated mandates and baskets of securities that do not engage in securities lending activities, this risk is zero. If securities lending is active, borrower default risk arises.

SEGREGATED MANDATES	BASKETS OF STOCKS/ BONDS	EQUITY INDEX FUTURES	SWAPS
Segregated portfolio	Share	Derivative	Derivative
100%	100%	Margin	Collateral (variable amount)
No maturity Do not require active management/ monitoring of the portfolio by the end investor IMA is needed and can take several weeks to implement Custody and administration fees to be negotiated by investors	Require daily management of dividend payments, corporate actions, index rebalancing etc. Operationally intense in terms of booking and execution	Require management of margin requirements, currency, and roll/expiry Potential for tracking error; may require manual rebalancing	ISDA paperwork often cumbersome Unwinding ante-expiry may result in early termination costs
Management fees; rebalancing, administration, custodian fees; other costs. Access costs.	Access costs.	Dividend assumptions, funding differentials; rolling costs; access costs.	Embedded financing costs; access costs; possible early termination fees.
Low, depends on exposure	High	Low	Low
No/Minimal <sup>1</sup>	No/Minimal <sup>1</sup>	Minimal	Significant <sup>2</sup>
Low, through the fund company	Low, multiple dealers	Low, multiple dealers	High, one dealer
Medium, normally once a day	Low, intraday	Low, intraday	High, price upon request OTC
Fully customisable	Fully customisable	On-exchange liquidity typically supports large trading volumes	Customisable
Investor's own tax regime		Generally low transaction costs	
		Capital efficient	



## Costs

While holding costs for index funds, ETFs and segregated mandates are charged based on a TER basis, certificates, futures and swaps have embedded costs linked to financing and rolling the positions.

## Trading and liquidity

ETFs, Futures and baskets of equities are traded on a regulated exchange throughout the day, allowing investors to instantly enter or exit exposures. Index funds and segregated mandates typically have daily liquidity and are priced and traded with one unique entity.

## Risk

While any instruments tracking the same index will bear similar market risk, they may differ in terms of their issuer or counterparty risks. Index funds, physically-replicating ETFs and segregated mandates are considered the safest vehicles in this respect as they are fully invested in securities which can be delivered to the investor in the case of manager insolvency.

Derivative replicating ETFs are based on derivative contracts set up with a third party, so they can involve an additional level of risk and complexity that must be carefully evaluated. Limited transparency, counterparty default and collateral risk are factors to consider.

## Legal entity

ETFs and index funds are pooled investment vehicles, typically fully invested in a basket of underlying securities. They are usually highly regulated by national or supra-national investment directives – such as the UCITS Directive in the EU. Index futures and swaps are derivatives instruments and financial contracts between two investors (in the case of futures) or between an investor and a counterparty under which certain exchanges of cash flows are agreed, at certain dates. Importantly these two instruments are not ‘backed’ by physical securities (unlike index funds, ETFs and segregated mandates) or by a deed on a company balance sheet (as is the case for equities and debt instruments).

## Operational set-up

Index funds and ETFs are operationally easy for the end investor. They are buy-and-hold vehicles with no maturity, and the management and monitoring of the portfolio is

outsourced to the portfolio manager. Segregated mandates, however, require an investment management agreement execution, custodial set up and custom reporting, among other things. Futures require daily management of margin requirements and currency mismatches.

## Minimum trade size

The size of an investment can have a significant impact on the choice of instrument. ETFs and index funds allow investors to gain exposure to the chosen benchmark for both high and low investment sizes while swaps and segregated mandates are only available for larger investments and futures are traded in fixed contract sizes.

## Shorting and lending

Only ETFs, futures and baskets of securities can be shorted. Revenues from securities lending can only be generated through ETFs, index funds, segregated mandates and baskets of stocks. ETFs can additionally be lent at the ETF unit level, creating the potential for additional revenues for holders.

While some features of ETFs are consistent across ETF vehicles, others vary across different ETF ranges. In many cases, understanding their characteristics can allow the most efficient investment result to be achieved for your investment purpose.

## 3.2 HOW CAN TRUSTEES CARRY OUT DUE DILIGENCE ON ETFs?

### AS WITH OTHER INVESTMENT PRODUCTS, ETFs REQUIRE THOROUGH DUE DILIGENCE BEFORE INVESTMENT.

There are many important differences in ETFs’ structures, how they are managed and the level of transparency they offer. Due diligence is necessary to ensure the chosen fund can offer the market coverage, liquidity, cost structure and disclosure that is expected, in addition to being able to track its benchmark index accurately.

Key elements to consider when evaluating an ETF include:

- ▶ Index suitability
- ▶ Structure (replication methodology and transparency of the underlying)
- ▶ Performance (tracking error and tracking difference)
- ▶ Liquidity
- ▶ Operational characteristics (domicile, UCITS compliance)
- ▶ Total cost of ownership



---

It is also important to assess the ETF provider because there are significant differences between approaches and among providers. Managing index portfolios is a dynamic process that requires index fund management teams to make 'active' decisions and choices across a wide range of areas. These day-to-day decisions add up over time to ultimately determine portfolio performance.

An index portfolio manager needs the ability to handle three functions:

- ▶ **Managing risk:** index portfolio managers use sophisticated modelling and risk management to control the behaviour of real portfolios versus the theoretical index portfolio (we cannot invest in the actual index itself).
- ▶ **Minimising costs:** indices do not take into account transaction costs and other elements such as dividends and currency mismatches and these must be managed.
- ▶ **Optimising returns:** although index portfolio managers do not aim to generate alpha, they need to optimise portfolio returns to offset costs and maximise the quality of the index tracking.

# CONCLUSION

---

**GOING FORWARD, WE BELIEVE THAT PENSION SCHEMES AND THEIR STAKEHOLDERS COULD BENEFIT FROM EXPLORING HOW THE INDEX INVESTING LANDSCAPE HAS EVOLVED AND THE POTENTIAL OPPORTUNITIES THAT ARISE TO ADD VALUE TO AN INVESTMENT STRATEGY.**

Index funds are likely to remain one of the main index exposures held by UK pension funds, however, by taking a more holistic view of the opportunities in the index space, we believe that there is value to be added in portfolios through considering ETFs alongside other index products such as index funds and segregated mandates.

We expect that the tailwinds that have drawn institutional investors to ETFs will persist, and continued growth will be driven by more innovative products coming to the market, continued adoption of FI ETFs, and new applications of ETFs for institutional investors.

---

## DISCLAIMER

The Pensions and Lifetime Savings Association 2016 ©

All rights reserved.

You must not reproduce, keep, or pass on any part of this publication in any form without permission from the publisher.

You must not lend, resell, hire out, or otherwise give this book to anyone in any format other than the one it is published in, without getting the publisher's permission and without setting the same conditions for your buyers.

Material provided in this publication is meant as general information on matters of interest. This publication is not meant to give accounting, financial, consulting, investment, legal, or any other professional advice.

You should not take action based on this guide and you should speak to a professional adviser if you need such information or advice.

The publisher (The Pensions and Lifetime Savings Association) or sponsoring company cannot accept responsibility for any errors in this publication, or accept responsibility for any losses suffered by anyone who acts or fails to act as a result of any information given in this publication.

ISBN: 978-1-907612-43-5



**Pensions and Lifetime  
Savings Association**

Cheapside House,  
138 Cheapside,  
London EC2V 6AE

T: 020 7601 1700  
E: [plsa@plsa.co.uk](mailto:plsa@plsa.co.uk)

**[www.plsa.co.uk](http://www.plsa.co.uk)**

*October 2016*

This guide is for information only and is not  
advice about investment and must not be  
relied upon to make any financial decisions.