

Exchange-traded funds (ETFs) were launched in the early 1990s, combining the features of mutual funds and shares. In their 25-year history, ETFs have become one of the fastest-growing segments of the investment management business. ETFs are a listed index-tracking fund whose primary objective is to achieve the returns that correspond to the performance of a particular index. Conventional ETFs are subject to a number of non-Shariah compliant issues. The equities held in an ETF are not screened for Shariah compliance. Therefore, the core business activity as well as the financial ratios are at high risk of non-Shariah compliance. Conventional ETFs regularly practice securities lending, which accrue interest. Synthetic ETFs use conventional swap agreements which contravene Shariah principles from various dimensions. Thus, a Shariah compliant ETF must undergo Shariah screening of its business activity as well as its financial ratios. In terms of tracking, a Shariah compliant ETF should only track an Islamic index. In addition, the constituents making up the Islamic ETF must be lawful assets. Lastly, a Shariah Supervisory Board will also need to be established to ensure Shariah compliance.

Introduction

The creation of the mutual fund structure is credited to a Dutch merchant in 1774. The aim was to provide investors who had smaller amounts of capital with the ability to pool their funds and increase their access to profitable ventures while decreasing their investment risk via diversification. The fund was called "Eendragt Maakt Magt" or "Unity Creates Strength" and was diversified across 100 different assets in Europe, Central America, and South America. The fund lasted over 120 years and still holds the record for the longest-tenured investment vehicle of its kind to ever have existed 1.

Some two centuries later, in 1976, the first index fund was launched by the investment firm Vanguard Group. It was known as "Bogle's Folly," for John C. Bogle, the founder of Vanguard. He believed that it was far more important to stay invested than to trade in and out. So, Bogle created a fund that tracked the S&P 500. It was the Vanguard 500 (VFINX). It promised to keep up with the broad index of stocks at a rock-bottom cost².

Although mutual funds (open-end funds) gained popularity during the 1980s and 1990s, there were some criticisms. First, pricing of the mutual funds is done at the end of each day. This meant that the prices that occur during the day or intraday could not be used to value the mutual funds. The second issue was one of taxation. In the case whereby there was a withdrawal from the shareholders, it would cause taxable realised gains for other shareholders who maintain the portfolio. Thus, in the early 1990s, a new investment vehicle was created that had the same features as a mutual fund but had accommodated its limitation. This investment vehicle was called 'Exchange-Traded Funds' (ETFs). Unlike mutual funds, these ETFs can be traded like stock on the stock exchange. Moreover, although ETFs are open-end funds, they are to some extent similar to closed-end funds, for which the price can be traded at a premium or at a discount from the Net Asset Value (NAV) as the price is determined by market forces (the movement of supply and demand)³.

ETFs have become one of the fastest-growing segments of the investment management business. These funds provide liquid access to virtually every asset class allowing both large and small investors to build institutional-calibre portfolios. Indexing is at the heart of a process that has moved the investment industry from art to science, and the growing popularity of indexbased investment has forced all asset managers and advisers to improve their precision and value proposition⁴.

According to data from State Street Global Advisors, inflows for exchange-traded funds topped \$464 billion in 2017. Not only does that shatter old records—in 2016, the previous record year, there were inflows of \$288 billion—but it is a stark demonstration of how investors are favouring ETFs over other investment vehicles. Mutual funds, for example, only saw \$91 billion inflows over the same period, according to Credit Suisse, whose data covered 2017 through November.

According to data from research firm ETFGI, there is \$4.569 trillion in global ETF assets, compared with \$3.396 trillion at the end of 2016 — meaning the universe has grown by more than a trillion dollars in less than a year.

Considering the popularity of ETFs, it is vital for Islamic financial institutions to be aware of ETFs and how to make them compliant to Shariah.

¹ Davidson, L. (2012), The History of Exchange Traded Funds, Available from: http://www.morningstar.co.uk/uk/news/69300/PrintArticle.aspx

² Tuchman, M. (2013), What is an ETF?, Available from: https://www.forbes.com/sites/mitchelltuchman/2013/06/28/

 $^{{\}bf 3}$ Omar, A. et al. (2013), Fundamentals of Islamic Money and Capital Markets, Wiley: Singapore

 $^{4\ \}rm CFA$ (2014), A Comprehensive Guide to Exchange Traded Funds, Available from: https://www.cfapubs.org/doi/pdf/10.2470/rf.v2015.n3.1

WHAT ARE ETFS?

At their core, ETFs are hybrid investment products, with many of the investment features of mutual funds married to the trading features of common stocks. Like a mutual fund, an investor buys shares in an ETF to own a proportional interest in the pooled assets. Like mutual funds, ETFs are generally managed by an investment adviser for a fee and are regulated. But unlike mutual funds, ETF shares are traded in continuous markets on global stock exchanges, can be bought and sold through brokerage accounts, and have continuous pricing and liquidity throughout the trading day. Thus, they can be margined, lent, shorted, or subjected to any other strategy used by sophisticated equity investors⁵. ETFs are a listed index-tracking fund whose primary objective is to achieve the returns that correspond to the performance of a particular index.

Like other investment funds, ETFs are generally made up of a group of different assets, such as shares or commodities. An ETF will contain assets that help it to track the performance of its underlying market as closely as possible. For example, there are several FTSE 100-tracking ETFs available that will contain the constituents of the FTSE 100, in proportions that help it to match the index's price. Other ETFs might aim to track entire sectors, or the price of an individual market like gold.



Figure 1: What are ETFS, Doyle Investment



HOW DO ETFS TRACK?

There are two primary ways that passive investment funds mimic the performance of an index6:

Incorporation of ETFs

ETFs originate with a fund sponsor, which chooses the ETF's target index, determines which securities will be included in the "basket" of securities, and decides how many ETF shares will be offered to investors.

Say, for example, a fund sponsor wants to create an ETF that tracks the S&P 500 Index. Because of the expense involved in acquiring the basket of securities that represent the securities listed on the S&P 500—which can run into the millions of dollars—the fund sponsor typically contacts an institutional investor to obtain and deposit with the fund the basket of securities. In turn, the ETF issues to the institutional investor a "creation unit," which typically represents between 50,000 and 100,000 ETF shares. (Note that, unlike shares in a traditional mutual fund that are purchased with cash, ETF sponsors require its investors to deposit securities with the fund.)

Retail investors who purchase an interest in an ETF do not directly own a pro-rata interest in the ETF's portfolio. Rather, the investor owns a share in a "creation unit," which is issued by the ETF sponsor to a creation unit holder in return for a basket of securities. In other words, there is a person — typically an institutional investor — interposed between the retail ETF owner and the ETF sponsor.

Each ETF share represents a stake in every company listed on the S&P 500 Index. The institutional investor that holds the creation unit (the "creation unit holder") is then free to either keep the ETF shares or to sell all or part of them on the open market. ETF shares are listed on a number of stock exchanges (NYSE, NASDAQ, Amex, etc.) where investors can purchase them through a broker- dealer. Like other exchange-listed securities, a retail investor who purchases an ETF can liquidate its investment by selling its ETF shares at the current price. By contrast, a creation unit is liquidated when an institutional investor returns to the ETF the specified number of shares in the creation unit; in return, the institutional investor receives a basket of securities reflecting the current composition of the ETF.

The basket of securities deposited by the institutional investor with the fund sponsor has been predetermined by the sponsor to track a particular index. When changes are made to the index (a stock is added to or dropped from the index), the fund sponsor notifies the creation unit holders that changes need to be made to the basket of securities originally deposited with the fund to ensure that the basket continues to track the composition of the index⁷.

HOW AN ETF COMES TO MARKET

Step 1

A fund sponsor sets an investment objective (e.g. create an ETF that tracks the S&P 500 index) and develops the list of the basket securities that can be exchanged for ETF shares.

Step 2

The fund sponsor forms participation agreements with entities that want to become creation unit holders (e.g. securities firm or institutional advisor).

Step 3

The participating companies assemble a basket of securities that contain shares of every company listed on the S&P 500 based on their relative weighting and deposit the basket of securities with the fund sponsor.



Step 4

In return for the basket of securities, the fund sponsor provides the participating entities with a "creation unit" which can contain thousands of individual ETF shares.

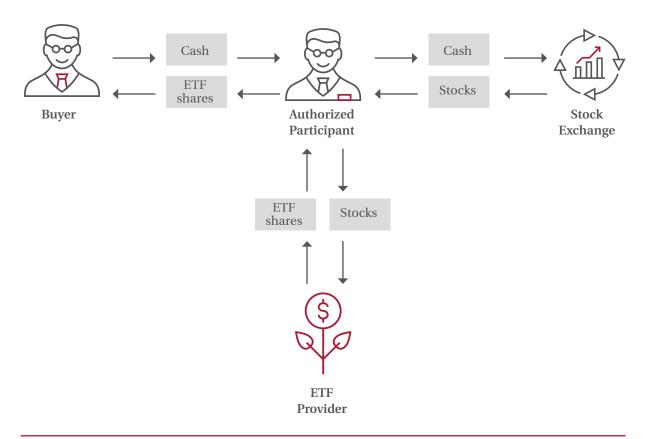
Step 5

The creation unit holder can either hold the ETF shares or sell all or part of them.

Step 6

Retail investors can purchase the individual ETF shares through a broker/dealer.

Figure 2: Investment Company Institute, A Guide to Exchange-Traded Funds



Benefits of Investing in ETFs

Among the advantages of ETFs are the following8:

Lower costs

ETFs generally have lower costs than other investment products because most ETFs are not actively managed and because ETFs are insulated from the costs of having to buy and sell securities to accommodate shareholder purchases and redemptions. ETFs typically have lower marketing, distribution and accounting expenses, and most ETFs do not have 12b-1 fees.

Buying and selling flexibility

ETFs can be bought and sold at current market prices at any time during the trading day, unlike mutual funds and unit investment trusts, which can only be traded at the end of the trading day. As publicly traded securities, their shares can be purchased on margin and sold short enabling the use of hedging strategies, using stop orders and limit orders, which allow investors to specify the price points at which they are willing to trade.

Tax efficiency

ETFs generally generate relatively low capital gains, because they typically have low turnover of their portfolio securities. Although this is an advantage they share with other index funds, their tax efficiency is further enhanced because they do not have to sell securities to meet investor redemptions.

Market exposure and diversification

ETFs provide an economical way to rebalance portfolio allocations and to "equitize" cash by investing it quickly. An index ETF inherently provides diversification across an entire index. ETFs offer exposure to a diverse variety of markets, including broad-based indices, broadbased international and country-specific indices, industry sector–specific indices, bond indices, and commodities.

Transparency

ETFs, whether index funds or actively managed, have transparent portfolios and are priced at frequent intervals throughout the trading day. Some of these advantages derive from the status of most ETFs as index funds.



ETF Tracking Structures

The aim of an ETF is to track the performance of an index, such as the S&P 500. An ETF's performance is reflected in the fund's NAV and in the price of its shares. To replicate an index, an ETF can be structured as either a physically replicating ETF or a derivative replicating ETF⁹.

Physically replicating ETFs

Physically replicating ETFs buy the same assets as the index being tracked, providing the investor with the reassurance of actually having an ownership interest in the assets through the creation units. There are two physical tracking techniques:

Full replication

All the assets in the index are held and the weighting of each asset is equal to its weighting in the index. This process buys all components of an index. For example, a FTSE 100 tracker fund will buy shares in all 100 companies in the index, in proportion to size of the companies within the index. This means that funds can mirror the performance of the index as closely as possible.

Sampling replication (optimisation)/Partial replication

All the assets of a large index are not held, as full replication could be less efficient and costly.

When using an optimised approach, the ETF provider buys a sample of the index's constituents in order to replicate its performance. This approach is commonly used where the tracked indices comprise a very large number of stocks or bonds, some of which could be illiquid. Sampling will tend to focus on the largest and most liquid stocks in the index, in order to reduce transaction costs. Computer modelling may be used to determine the most efficient basket of stocks to achieve the most accurate replication.

When it is difficult to buy all the shares in an index, some passive funds invest in a sample of an index that is generally representative of the whole index. A good example of this is the MSCI World index. This comprises more than 1,700 companies from 23 countries - the time and cost it would take to hold all the companies in the index for full replication could be detrimental to the portfolio. Instead, partially replicated passive funds will purchase a sample of the companies that are most representative of the index itself.

Derivative replicating ETFs

Derivative replicating ETFs are constructed to deliver the performance of an index through the use of derivative contracts (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).

Derivative ETFs are also known as synthetic ETFs. Synthetic ETFs are riskier than physical ETFs due to what's known as 'counterparty risk' which means if the investment bank that has sold the swap to the ETF can't meet its obligations, you could lose out. Sellers of swap contracts usually have to provide collateral to reduce this risk. However, physical ETFs are easier to understand and less vulnerable to hidden risks, so they're more suitable for individual investors¹⁰.



9 NAPF (2014), Exchange Traded Funds, Available from: https://www.plsa.co.uk/portals/0/Documents/0402-Exchange/pdf

¹⁰ Barclays, An Introduction to Exchange Traded Funds, Available from: https://www.smartinvestor.barclays.co.uk/learn/investments-explained/

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ETFS: ACTIVE VS. PASSIVE

Passive ETFs

Most ETFs that track market indices are called passive ETFs. Managers who are in charge of overseeing passive ETFs will take a hands-off approach, simply ensuring that their ETFs replicate their designated indices. A manager will not intervene if an index takes a turn for the worse. In other words, the manager is being *passive*.

Active ETFs

While the vast majority of ETFs are categorised as passive, in the past few years a handful of active ETFs have become available to investors. Active ETFs are run by a manager or a management team that attempts to outperform their designated index. But outperformance is not guaranteed; sometimes an ETF can do better than its index, but sometimes it can do worse. For example, an investor holding an active ETF that tracks the FTSE 350 would experience slightly different returns from the returns of the FTSE 350 index because management is actively using strategies to try to outperform the index¹¹.



DIFFERENT TYPES OF ETFS

Index ETFs

Most exchange-traded funds (ETFs) attempt to track the performance of an index. There are 2 basic types of indexes: indexes that track the overall market, such as the S&P 500 Index, and indexes which track a much more targeted subset of the overall market, such as small-cap growth stocks or large-cap value stocks. There are also indexes on bonds, commodities, and currencies. An index–based ETF seeks to earn the return of the market or subset of the market that it aims to replicate, less the fees. It should be noted that index ETFs do not perfectly track the underlying index; there is usually some level of tracking error, which is the difference between the ETF market price and the net asset value of the fund. Generally speaking, indexes based on a subset of the market are compared to and compete with more broad-based indexes. Thus, investors typically will compare, say a small-cap index, with a broader index on the overall market.

Indexes are designed to measure, as closely as possible, the value of a specific financial market or segment of that market. They are stable baskets of stocks, bonds, commodities, or other assets whose overall price level, risk, and return are used as standard measurements worldwide. Indexes represent the universe of opportunities that all investors have to choose from in the weightings that actually are available in the marketplace.

The securities in an equity index are passively selected and weighted on capitalization. Typically, index providers include a broad selection of securities and attempt to limit the turnover of those securities. Some indexes include all securities available on the public markets while others use a sampling of those securities.

Many popular market indexes do not hold all the securities on the broad market. However, they do hold enough securities that are sampled from the market to qualify as a market index. Sampling methods can be optimized in an attempt to track the broad market as closely as possible. For example, the S&P 500 Index does not hold all large-cap stocks, although it holds enough securities so that the index exhibits close to the risk and return characteristics of a broad basket of large-cap stocks¹².



Bond ETFs

Bond ETFs are a type of exchange-traded fund (ETF) that exclusively invest in bonds. They are like bond mutual funds because they hold a portfolio of bonds with different strategies, from U.S. Treasuries to high yields, and holding periods, between long-term and short-term. Bond ETFs are passively managed and trade much like stock ETFs on a major exchange. This helps promote market stability by adding liquidity and transparency during times of stress.

Bond ETFs offer many of the same features of an individual bond including a regular coupon payment. One of the benefits of owning bonds is the chance to receive fixed payments on a regular schedule. These payments traditionally happen every six months. Bond ETFs, in contrast, hold assets with different maturity dates, so at any given time, some bonds in the portfolio may be due for a coupon payment. For this reason, bond ETFs pay interest each month with the value of the coupon varying from month to month. Assets in the fund are continually changing and do not mature. Instead, bonds are bought and sold as they expire or exit the target age range of the fund.

Some fixed income ETFs seek to track an index or underlying investment product. However, many bonds in indices are not liquid, meaning they do not trade on a regular basis. As a result, full replication of a traditional bond Index is nearly impossible. That being the case, ETF managers attempt to reflect the risk and return characteristics of popular bond indices by sampling a basket of liquid securities that trade frequently and closely track the index. Once a portfolio of bonds is created, the sampled portfolio is optimized and tested to see whether there is a significant difference in its past risk and return and the index it is trying to track.

The ETF fixed income market is composed of many types of securities. They include, but are not limited to, U.S. Treasury Bonds, Mortgage-backed Bonds, Municipal Bonds, Corporate Bonds, Junk Bonds, International Bonds, Convertible Bonds, Inflation-Protected Bonds, Short-Term Bonds, Intermediate-Term Bonds, Long-Term Bonds, Leveraged Bonds, and Inverse Bonds. Bond indices divide maturities into three ranges. Short-term indices hold bonds that have an average maturity of 3 years or less, intermediate-term indices hold bonds with an average maturity of 4 to 9 years, and long-term indices hold bonds that have an average maturity of 10 years or longer. If an index has an average maturity of 5 years, it does not mean all bonds in the fund mature in 5 years. The bonds could mature from 1 year through 10 years or any combination thereof13.



Commodity ETF/Futures-based ETFs

Futures-based (synthetic) funds use futures or swap contracts to provide exposure without any physical holdings¹⁴ while a commodity ETF invests in physical commodities, such as agricultural goods, natural resources and precious metals. A commodity ETF is usually focused on either a single commodity — holding it in physical storage — or is focused on investments in futures contracts. Other commodity ETFs look to track the performance of a commodity index that includes dozens of individual commodities through a combination of physical storage and derivative positions.

When an investor purchases a commodity ETF, he normally does not own the physical asset, but instead owns a set of contracts backed by the commodity itself. Since many commodity ETFs use leverage through the purchase of derivative contracts, they may have large portions of uninvested cash, which is used to purchase Treasury securities or other nearly risk-free assets¹⁵.



- 14 ETFDB, 3 Things You Need to Know When Picking a Commodity ETF, Available from: http://etfdb.com/2013/3-things-you-need-to-know-when
- ${\bf 15} \ {\bf Investopedia}, Commodity \ {\bf ETFs}, Available \ from: https://www.investopedia. \\ com/terms/c/commodity-etf.asp$

Foreign Currency ETFs

Currency ETFs are designed to track the performance of a single currency in the foreign exchange market against the US dollar or a basket of currencies. This is accomplished by multiple methods like cash deposits, short-term debt denominated in a currency, and future or swap contracts.

In essence, currency ETFs are a speculative trade on spot exchange rates. Exposure to spot exchange rates is perhaps the most fundamental aspect of investing in currency funds. This means investors are betting on one of two outcomes: the core currency performs well or the counter currency tumbles. The investor always takes a long position on a currency relative to being short on another one¹⁶.

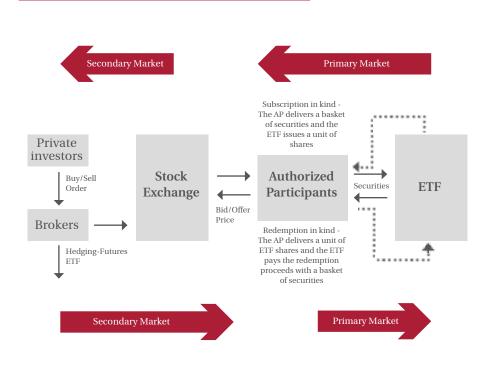


Figure 4: ETF trading, K&L Gates¹⁷

¹⁶ Investopedia, Currency ETF, Available from: https://www.investopedia.com/terms/c/commodity-etf.asp

¹⁷ K&L Gates, Available from: http://www.klgates.com/files//Upload/2016IM_ DC_Conference_Presentations_SessionXIII.pdf

RISK ASSESSMENT OF ETFS18

Counterparty risk

Synthetic ETFs bear the risk of failure of the counterparty, such as an investment bank, on the other side of the investment swap from the fund manager. The collapses of US banks Lehman Brothers and Bear Stearns during the financial crisis showed that worst-case scenarios do happen. Investors should examine what collateral is being held against the swap by asking the provider or reading the fund prospectus.

Tracking error

This is the extent to which any ETF deviates from the index it is set up to mimic. Managing this is a key job for the manager of the fund, and how they have performed is something for the private investor to look at: they can compare the fund's record with the selected index in the fund documents or on the manager's website. Some asset classes, such as emerging markets, are likely to demonstrate more tracking error than others.

Liquidity risk

Ultimately, the ETF is as liquid as the market it is tracking. In times of market stress, investors will be able to get their money out more easily from a highly liquid, diversified market.

Sampling

This is related to tracking error. Some physical ETFs do not buy every security in the targeted index or category, perhaps because of the number of constituents. If the fund is small relative to the index, managers may sample from the index. Investors can check whether the fund they are buying is fully replicating, or whether sampling is involved.

Asymmetric information

Even if the ETF fully replicates the index, the make-up of the index itself may mean that investor's true exposure does not fit with what they have signed up for. If the fund is tracking a market capitalisation-weighted index, buyers may not be aware of the concentration among the very largest companies. If they are hoping to invest in a particular theme, such as a country-specific equity fund, their exposure may be biased to a few multinational companies.

Asset exposure

ETFs do not need to hold cash to meet redemptions, so investors switching from an open-ended fund may not realise that they have more exposure to the underlying asset than they did before. They may not realise they are making a decision that affects their risk profile.

OTHER EXCHANGE TRADED PRODUCTS

ETFs dominate the exchange traded products market, but there are two other types of exchange traded products.

Exchange Traded Notes (ETNs)

ETNs are investment products designed to give access to a specific asset class or index. They belong to the Exchange Traded Product (ETP) family, which also includes Exchange Traded Commodities (ETCs) and Exchange Traded Funds (ETFs). ETNs are senior, unsubordinated, unsecured debt issued by an institution and are linked to a variety of assets, including commodities and currencies. They are primarily designed to have "no tracking error" between the product and its underlying index¹⁹. ETNs 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 and 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.

ETNs, like ETFs, are also products whose price tracks a stock price index, commodity price, or other such "specified indicator". As indicated by the word "Note", because the price is ensured to track the specified indicator based on the credibility of a financial institution (issuer).

ETNs differ from ETFs in that there are no assets backing the security²⁰. Additionally, ETFs are open ended funds while ETNs are secured or unsecured debt securities issued by a bank or brokerage firm and have a maturity. So, an investor who buys an ETF owns shares of a fund which represent a fractional ownership in the underlying securities held in the fund whereas the holder of an ETN holds a debt security where the ability of the ETN to pay back principal and performance is linked to the credit worthiness of the issuing entity.

As ETNs are often based on commodities, there can be differences in performance across products depending on the type of instrument used to provide the exposure i.e. futures contracts, forwards, physical commodities, or based on shares of commodity producers i.e. companies engaged in the industry such as gold mining stocks.



- 19 Fidelity, Commodity-based ETFs, Available from: https://www.fidelity. com/learning-center/investment-products/etf/types-of-etfs/types-of-etfscommodity
- 20 JPX, ETNs, Available from: http://www.jpx.co.jp/english/equities/products/etns/outline/index.html

Shariah Non-Compliance of Conventional ETFs

The following points are areas of concern and non-compliance in conventional ETFs, and ETNs:

1. Non-Shariah compliant constituents

Conventional ETFs are composed of underlying assets which are not Shariah compliant. Unscreened equity constituents in an ETF portfolio could well fail at the business screening phase. Others may be prone to excessive leverage and interest-bearing debt, making them non-Shariah compliant in the financials screening.

Bond ETFs are non-Shariah compliant assets as the debt security is essentially a loan with interest. A bond is a debt obligation for which the issuer pays a pre-determined rate of return to the bond holder. There is no investment in any underlying asset; rather, the issuer has a personal right and a liability to the bond holders. The payment for the bond is effectively a loan (*Qard*) from a Shariah perspective and any interest paid on this loan is considered non-compliant.

2. Tracking non-Shariah compliant indices

Strictly and legally speaking, tracking a non-Shariah compliant index is not unlawful and neither does it make the mirroring investment non-Shariah compliant, however, it is counter-productive for the Islamic finance industry. For the Islamic finance industry to grow, it needs to develop a holistic, complete and independent system which has its own indices.

Tracking a non-Shariah compliant index is an extrinsic issue to the Shariah compliant ETF. Extrinsic in this context means that the contracts involved in the ETF, and the assets are compliant. The ETF in and of itself – *intrinsically*- is compliant. Tracking is an external matter and hence cannot render the ETF as non-compliant.

However, a number of Shariah boards have considered the tracking of non-Shariah compliant indices as non-compliant. This will assist the Islamic finance industry to grow and disengage with any non-compliant element as a whole.

3. Failed Shariah screening

Many conventional ETFs fail either in the business screening or financial screening for Shariah compliance. ETFs are invested in non-Shariah compliant financial instruments such as swaps, financial and unlawful beverage producing companies. Likewise, the financials of many equities in conventional ETFs are non-compliant with Shariah due to the excessive leveraging, interest bearing deposits, interest bearing debt and high proportion of unlawful income.

4. Derivatives

The constituents in commodity ETFs are composed of future and swap agreements. Such derivatives are non-Shariah compliant. In futures transactions, counter-value, i.e., money or goods, is not present at the time of contract, thereby, making the sale irregular (*fasid*). A normal sale cannot have both counter-values contractually deferred. Therefore, futures trading, where both counter-values are contractually deferred, is impermissible as it is an exchange of one debt for another, i.e., *bay' al-kali bil kali* (a sale of two deferred counter-exchanges).

5. Securities lending

Another prominent issue in conventional ETFs is securities lending. Securities lending is a well-established activity where ETFs make short-term loans of the underlying stocks or bonds in the portfolio; this can incrementally increase the returns for shareholders²¹. Lending takes place in the following manner:

First, a large financial institution asks to temporarily borrow a stock or bond from an ETF. To borrow the asset, the institution must compensate the fund and provide collateral, which must exceed the value of the loaned stock or bond. The fund company invests the collateral in low-risk money market funds, which can generate incremental returns until the borrowed stock or bonds are returned. The ETF issuers receive cash collateral, they don't just sit on it—they put it into money market securities to earn some small amount of interest on the cash²².

Securities lending is rarely undertaken directly between a fund and a borrower. Fund managers usually employ intermediaries, such as custodian banks and third party specialists, as agents to lend their securities for them. These intermediaries benefit from economies of scale, expertise, technology, as well as borrower access which enables them to secure the most competitive pricing. In some cases, the lending agent may be a related party to the fund provider.

Borrowers of securities include large financial institutions, such as investment banks, market makers and broker-dealers. Hedge funds are among the largest borrowers of securities, but they will typically borrow through the prime brokerage arms of investment banks, or broker-dealers, rather than directly from lending agents or fund managers.

These financial institutions borrow securities for a variety of reasons, including ensuring the settlement of trades, as well as to facilitate market making and other trading activities, such as hedging and short selling²³.

Lenders (Supply) Borrowers (Demand) — Securities — Beneficial **Intermediaries End-Users Borrowers** Owner Custodian – Fees -Banks Hedge Funds Market Makers Mutual Funds ETF Invt. Manager **Broker Dealers** Traders Leading Agent ←Collateral –

Principal-Based Transaction

- 21 iShares, Securities lending, Available from: https://www.ishares.com/us/education/securities-lending
- 22 ETF.com, Understanding Securities Lending, Available from: http://www.etf.com/etf-education-center/21031-understanding-securities-lending.html?nopaging=1
- 23 Bioy, H. & Rose, G. (2012), Securities Lending, Morningstar ETF Research, Available from: https://media.morningstar.com/uk/media/ETF/ SecuritiesLendinginPhysicalETFs.pdf

ETF fund managers commonly place the collateral received into money market and gain interest for the fund. According to Islamic law, depositing funds in the money market is considered as a *Qard* (loan). Any payment in lieu of such a deposit is *Riba* (interest). In Islam, a loan (*Qard*) is considered a gratuitous contract, and it is commendable for a lender to provide a loan to a borrower who is in need of money. The fact that the Shariah prohibits the lender to derive any conditional benefit from the loan further emphasises its gratuitous nature. It also implies that the loan contract should not be used for profiteering purposes. Thus, any profit or additional return in lieu of the loan is impermissible and non-Shariah compliant. Both the Qur'an and the Sunnah have prohibited the lender from charging the borrower any additional amount. The Qur'an emphasises that the lender is entitled to receive only the principal amount. It states:

"O you who believe!
Fear Allah, and give up what remains
of your demand for usury, if you are indeed believers.
If you do it not, take notice of war from Allah and His Messenger.
But if you turn back, you shall have your capital sums:
Deal not unjustly, and you shall not
be dealt with unjustly"

(al-Qur'an, 2:278-279).

A famous juristic maxim states: "Any loan which draws an increment is *Riba*" (Ibn Abi Shaybah). Furthermore, the institution which borrows the securities pay fees to the ETF. This is also a form of Riba for the ETF.

Another concern is the borrowing of securities for hedging and short selling purposes – both of which are non-Shariah compliant activities.

6. Exchange Traded Notes

ETNs are generally structured on swap agreements. A swap is a contractual agreement in which two parties agree to exchange payments over a period of time, based on a notional amount of the underlying asset. The rate at which the payments would be exchanged would be predetermined, based on either a fixed amount or an amount based on a reference based measure. Conventional swaps are essentially a derivative contract where one set of cash flows is exchanged, or swapped, for another. In conventional practice, a swap is mainly used for the purpose of hedging or minimising risk faced by an institution or financial organisation by protecting the value of the asset from being exposed to the volatility and fluctuations of a market²⁴.

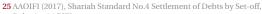
The AAOIFI Standards (5.3.1) state in respect to swaps:

Swaps are agreements between two parties for the temporary exchange of determined financial assets, material assets or interest rates. In some cases, the sale of a commodity or deferred currency takes place without the transaction resulting in any exchange of the commodity, while in other cases there may be an option, in return for a counter-value, that gives the owner the right to execute or not to execute the contract.

Swaps are not permitted in the forms in which they are practised in commodity exchanges. The basis for the impermissibility of swaps is that no actual exchange of counter-values takes place thereby. Such swaps, as well, usually constitutes interest payment, 'Inah (sale and buy-back agreement), and deferment of one of the counter-values.

The currency swaps that are concluded on the basis of *Riba* are not permissible. This is because in this process it is the interest-based securities that are set-off against interest-based securities"25.









ISLAMIC ETF GUIDELINES

In order to structure an ETF in compliance with Shariah, the following factors need to be considered:

1. Shariah compliant constituents

The constituents of an ETF must be Shariah compliant. This refers to the shares purchased by the ETF and any asset held by the ETF.

2. Compliance with Shariah screening

Every ETF must be screened periodically to ensure on going Shariah compliance. An ETF must pass the following two screening criteria:

- > Business Activity Screening
- > Financial Screening

1. Business Activity Screening:

Companies involved in any of the following activities will be filtered out as non-Shariah compliant:

- Conventional financial services (conventional banking and conventional investments)
- Trading in risk and *Gharar* (insurance companies)
- Gambling, *Qimar* and *Maysir* activities (casinos)
- Alcohol and prohibited beverages
- Pork related products and non-halal food production, packaging, processing or any direct activity linked to unlawful consumables
- · Tobacco related products
- Illicit adult industry (pornography)
- Entertainment (music, cinema)

A company which passes the business activity screening will then be subject to a financial ratio screening.

2. Financial Ratio Screening:

- Total interest and non-compliant activities income should not exceed 5% of total revenue.
- Interest taking deposits must be less than 30% of the market capitalisation
- Interest bearing debt must be less than 30% of the market capitalisation
- Total market value of non-cash and non-debt assets should be at least 30% of the total value of all the assets²⁶.

3. Tracking a Shariah compliant index

Conventional ETFs track the common conventional indices. Although tracking an Islamic index is not an absolute requirement for Shariah compliance of an ETF, it is nevertheless highly encouraged and commendable. An Islamic ETF should only track indices which are Shariah compliant.

26 AAOIFI (2015) puts a condition that the total market value of non-cash and non-debt assets should be at least 30% of the total value of all the assets. Thus, if the primary asset of a company is neither cash nor debt, and the total market value of all non-cash and non-debt assets is at least 30% then the stocks of such company can be freely traded at any price.

Thus, a company with a composition of up to 70% cash and receivables is permissible to trade. A company with cash and receivables above 70% can only be traded in accordance with the principles of Bay al-Sarf (if cash is majority) or Bay al-Dayn (if receivables is majority).

4. Compliance with Shariah principles for gold, silver and currencies

Any ETF which has gold, silver or currency as its constituents must comply with the Shariah principles of trading gold, silver and currencies²⁷.

Gold is a fungible item (measured by weight) and a *Ribawi* commodity, and is subject to special Shariah rulings known as *Bay' al-Sarf*. If gold is not the primary asset of a fund whose activities do not involve trading in gold, silver and currencies, and the entity or part thereof is sold, along with that gold, the permissibility of the sale is not subject to the Shariah rulings of *al-Sarf*.

Sale of gold for silver is permissible regardless of disparity in the weight of the counter-values; and sale of gold for currencies is permissible at any mutually agreed price. In both cases, the counter-values must be exchanged as required by Shariah.

Sale of gold for anything other than gold, silver or currencies – as in the case of selling gold for commodities, usufruct or services - is permissible at any price without the requirement of immediate exchange of the counter-values.

In case of sale of gold for gold, silver or currencies, the two counter-values must be delivered during the contracting session, physically or constructively. If gold is sold for anything other than the above, deferment of one of the counter-values is then permissible. However, it is not permissible to stipulate deferment of both the counter-values when selling gold, as in the case of forwards and futures.



5. Shariah compliant trading

The following orders which are practised in the ETF market are Shariah compliant and acceptable:

- > Market order: This refers to placing an order with a broker or online to buy, say, 100 shares of a certain ETF. The order goes to the stock exchange, and you get the best available price.
- > Limit order: More exact than a market order, you place an order to buy, say, 100 shares of an ETF at \$23 a share. That is the price you will pay. If no sellers are willing to sell at \$23 a share, your order will not go through. If you place a limit order to sell at \$23, you'll get your sale if someone is willing to pay that price. If not, there will be no sale.
- > Stop-loss (or stop) order: Designed to protect you should the price of your ETF or stock take a tumble, a stop-loss order goes into effect when your ETF falls beneath a certain point. At that point (say 10 percent below the current price), your order automatically turns into a market order. Stop-loss orders can serve to limit your exposure to a falling market.

When trading ETFs, it is necessary to ensure the rules of sale are adhered to. The following are generic Shariah principles for trading:

Principle 1

The subject of sale must be existing at the time of sale.

If a non-existent thing has been sold, though by mutual consent, the sale is void according to Shariah.

Principle 2

The subject of sale must be in the ownership of the seller at the time of sale.

What is not owned by the seller cannot be sold. If he sells something before acquiring its ownership, the sale is void.

Principle 3

The subject of sale must be in the physical or constructive possession of the seller when he sells it to another person.

"Constructive possession" means a situation where the possessor has not taken the physical delivery of the commodity, yet the commodity has come into his control, and all the rights and liabilities of the commodity are passed on to him, including the risk of its destruction.

Constructive possession includes the registration of a mortgage of immovables and (hypothecation) of mobile movables like cars, trains, steamers and airplanes through registration that is valid under the law. Registration stands in place of actual possession with respect to its rules & legal effects.

The possession of documents, like bills of lading and warehouse receipts, issued in the name of the possessor or acknowledging his interest therein is deemed constructive possession of what the documents represent if the ascertainment of commodities, goods and appliances is attained through them along with the ability of the possessor to undertake transactions in them²⁸. The rules mentioned apply to ordinary sales, however, *Bay' Salam* and *Istisna'* are exempted from the above.

Principle 4

The sale must be instant and absolute.

Thus, a sale attributed to a future date or a sale contingent on a future event is void. If the parties wish to effect a valid sale, they will have to effect it afresh when the future date comes or the contingency actually occurs.

Principle 5

The subject of sale must be a property of value. Thus, a thing having no value according to the usage of trade cannot be sold or purchased.

Principle 6

The subject of sale should not be a thing which is not used except for a haram purpose, like pork, wine etc.

Principle 7

The subject of sale must be specifically known and identified to the buyer.

Principle 8

The delivery of the sold commodity to the buyer must be certain and should not depend on a contingency or chance.

Principle 9

The certainty of price is a necessary condition for the validity of a sale. If the price is uncertain, the sale is void.

Principle 10

The sale must be unconditional. A conditional sale is invalid, unless the condition is recognized as a part of the transaction according to the usage of trade.



6. Shariah supervisory board

To ensure Shariah compliance, an ETF fund must have a Shariah supervisory board to monitor the compliance of the fund.



Conclusion

ETFs, in their 25-year history, have become one of the fastest-growing segments of the investment management business. These funds provide liquid access to virtually every asset class and allow both large and small investors to build institutional-calibre portfolios. Thus, for Islamic financial institutions, ETFs are a lucrative form of investment. However, as shown above conventional ETFs fall short in a number of Shariah compliance issues. The equities held in a conventional ETF are not screened for Shariah compliance. Therefore, the core business activity as well as the financial ratios are at high risk of non-Shariah compliance. Conventional ETFs regularly practice securities lending, which accrue interest and are controversial due to the concept of lending securities and further trading them. Synthetic ETFs trade using conventional swap agreements which contravene Shariah principles from a number of angles. Thus, a Shariah compliant ETF must undergo Shariah screening of its business activity as well as its financial ratios. In terms of tracking, a Shariah compliant should only track a Shariah compliant index. In addition, the constituents of the ETF must be lawful assets. All this with a regular review and oversight of a Shariah supervisory board will ensure Shariah compliance.

ABOUT SRB

Since our humble beginnings more than 13 years ago we've grown to include more than 100 companies across a host of industries, thousands of transactional programs, multi-disciplinary teams and a combined scholarly workforce of 35 Sharia Scholars from 19 countries. And we're not done yet: our Sharia Advisory and Sharia Audit services will continue to improve—serving local and international businesses to help them maintain and manage Shari'a compliance.

We've been preparing our clients for a new world in which Sharia Advisory rapidly becomes the currency of choice. From faster Certification programs, to direct Sharia Supervisory access, and perhaps most critically, navigating through the economic structures of clients offerings within a matter of days. We've have been working hard to help clients like you capitalize on opportunities in global Islamic financial markets.

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The future of Sharia Advisory and Audit is exciting and we are very lucky to be a part of this business!

ABOUT OUR PEOPLE



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Disclaimer This is a preliminary Shariah research and is by no means a definitive conclusion or fatwa on the aforementioned subject. This paper was written to develop knowledge and research on this complex subject from a Shariah perspective. We hope that this paper will prompt and engage global Islamic finance bodies, Shariah scholars and Muslim economists to analyse, comment and build upon the arguments expressed. © 2018 Shariyah Review Bureau.