



ETF Playbook

**Drawing up a game plan
for ETF success**

kpmg.ie/etfs







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Introduction

Are you thinking about taking the plunge and entering the exchange traded funds (ETF) game? Have you already begun drawing up some plays and taken initial steps towards forming a fund, or are you on the verge of launching one?

Or maybe you've launched your ETF, but haven't yet experienced success?

You've seen the great potential for success. But you're also aware of some well-publicised, titanic failures that have taken place.

While the ETF space is growing by leaps and bounds, the playing field is replete with funds that were stopped in their tracks.¹ In fact, of 694 ETFs that launched in 2014, almost 50 percent have gained less than \$10 million each in assets, and it's getting harder for new launches to break through and score.

So what can you do to bolster your chances of being one of the few to win the game, and more importantly, keep the winning streak going?

To help you reach these goals, we have prepared this publication, which is designed to enhance your game plan for success, and help you gain a thorough understanding of the ETF landscape, complete with both pitfalls and potential.

Here, we will explore the significant and growing "ETF opportunity" and then address some essential elements needed to launch and operate a successful ETF. These include the necessity of having the right:

- Product to market
- Distribution game plan
- Execution strategy
- Taxation of ETFs as compared to mutual funds
- Operations and technology
- Formation and launch
- Audit and regulatory requirements for ETFs as compared to mutual funds
- Sales and distribution

This result will feature case studies of ETFs that made it through and those that were knocked out of contention early, as well as practical, actionable lessons that can be gleaned from each.

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates.

¹ETF Strategist: The 10 biggest fund flops of the year, CNBC.com, 12/30/14

The ETF opportunity

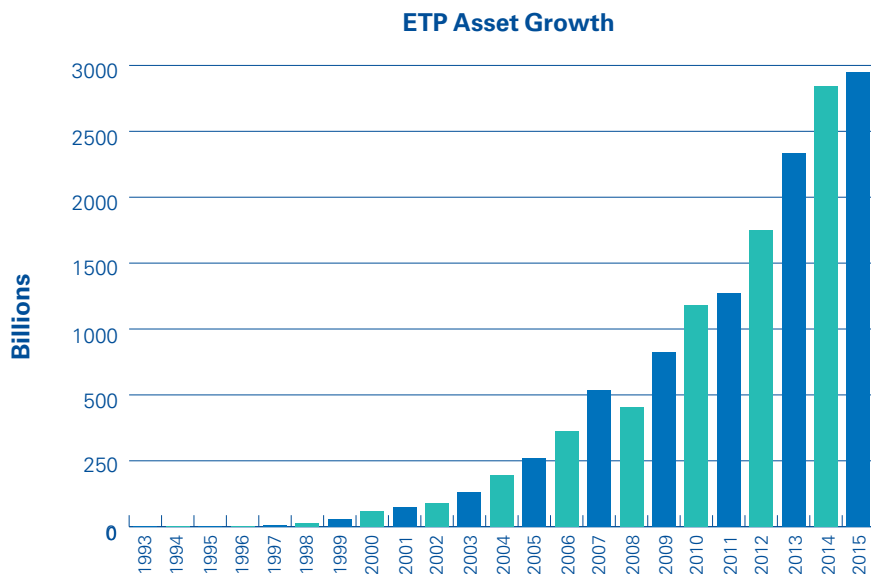
The ETF space is expected to represent a huge growth opportunity in the coming years. That's why so many potential sponsors, entities, and investors are interested in them.

After starting out slowly in the late 1990's, assets under management (AUM) in ETFs and other exchange traded products (ETPs)² grew to more than \$1 trillion in 2011 and jumped to almost \$3 trillion in 2015.

And that's just the tip of the iceberg. Global ETF/ETP AUM is projected to hit \$15.5 trillion by 2024³ and will likely be a key contender for marketplace supremacy alongside the reigning champ, mutual funds.

ETFs are creating dynamic and innovative investment strategies, and 'actively managed' ETFs represent the next generation of innovation.

With actively managed ETFs, rather than simply assembling a portfolio of indexes on which to base an ETF, managers of these types of ETFs may continually change the underlying index or portfolio allocations, like managers of mutual funds. What's more, investors have a wide variety of choices; they can purchase ETFs holding currencies, commodities, frontier markets, sectors, countries, leveraged vehicles, bank notes, and more.



² ETPs, or exchange traded products, include ETFs, exchange traded vehicles (ETVs), and exchange traded notes (ETNs).

³ ETFs' Future: Huge Growth, ETF.com, 2/4/2014



More opportunity, more competition

But just because there will be more investable assets on the playing field doesn't mean there will be room for everyone to play. The so-called "Big Three" - BlackRock, Vanguard, and State Street Global Advisors - currently control around two-thirds of the ETF marketplace. What's more, in 2015, these three fund sponsors took in 55 percent of the new cash allocated to ETFs.⁴

A number of other heavy hitters have also entered, or are taking steps to enter, the ETF market.⁵ So, the battle for the remaining portion of investable assets is likely to be difficult, albeit potentially lucrative.

To be successful in this competitive market, it's going to come down to outthinking your competition, having a game plan in place, and staying two or three steps ahead of the rest of the pack. Be ready to seize an opportunity when it appears and be nimble enough to adapt quickly.

Let's take a look at some key factors that enhance the likelihood of ETF success.

The right product

Regardless of the size of the fund or the sponsor, offer a product that provides a better or new solution for investors. This fundamental principle was behind some of the recent ETF success stories. (See sidebar on right.)

To increase the likelihood of creating an ETF product that connects with investors, you need to identify where there are existing or emerging market gaps that may call for an ETF to fill those needs.

One great way to determine if there's a market for your ETF is to hold focus groups with potential investors to see if they understand your product and its investment strategy. If you're considering marketing to retail investors, for example, you should be able to explain the product in a short elevator speech. If you can't, you may hit a significant roadblock entering that market.

Another key point is that the ETF should have a broad appeal, even if it's in a niche market, as creating an ETF that's only appropriate for one or a few of your larger clients can lead to problems down the road.

Case Studies: Two Paths to ETF Success

#1 – Sponsor finds an ETF niche:

With no legacy mutual fund business as a base, one sponsor did its due diligence and found a niche by creating a line of equity, fixed income, currency and alternative ETFs. This allowed it to market to a broad range of investors. In addition, the sponsor pays close attention to customer suggestions, and has launched ETFs inspired by such suggestions.

Measure of success: The sponsor launched its first ETFs in 2006 and is currently the fifth largest ETF provider in the United States. It manages nearly \$60 billion in its various ETFs, and inflows more than tripled in 2015 compared with the prior year.⁶

#2 – ETF sponsor nurtures

relationships: One sponsor's ETF strategists attribute the firm's success not just to outperforming the market, but also to its coordinated efforts to cultivate and strengthen relationships with the financial advisor community. They noted that they take a very patient approach, explain their strategies simply, and base them on the fundamentals.

Measure of success: Although it took time to foster these relationships, the results speak for themselves. ETF AUM grew nearly five-fold in the past three years, and the fund had the biggest asset growth of all ETF issuers in 2014, up 35 percent. In 2015 alone, it was the fastest growing ETF firm outside of the Big Three.⁷

⁴ Dominance of 'Big Three' forces wave of innovation, FT.com, 1/30/16

⁵ 3 ETF Predictions for Rest Of 2015, ETF.com, 8/7/15

⁶ ETFs 2.0: The Next Wave of Growth and Opportunity in the U.S. ETF Market, BNY Mellon Asset Servicing, 6/2011

⁷ Track Record Our Trump Card, ETF.com, 3/30/15

The right distribution

Another key to a successful ETF is making sure your distribution game plan is in place well before launch.

No matter how good your product is and how compelling your investment theme, unless you can find a way to get your fund distributed, you're likely to find yourself and your ETF falling short of the goal line.

The marketplace comprises four key sales segments:

- Direct-to-consumer
- Adviser sold
- Registered Investment Advisors (RIAs)
- Institutional



What do investors like about ETFs?

Below are some advantages that retail and institutional investors can get from ETFs as compared to corresponding mutual funds:

- **Fees:** ETFs typically have lower fees than comparable mutual funds. That's because the cost of shareholder servicing and recordkeeping is largely eliminated for ETF sponsors.
- **Investor objectives:** ETFs are well suited to meet investor objectives related to portfolio diversification, liquidity needs, or hedging.
- **Intraday trading:** ETFs are continuously valued throughout each trading day, and the price of an ETF share is market-derived.
- **Liquidity:** ETFs can be bought and sold at any time during the trading day, just like a stock. This liquidity factor is particularly important to institutional investors (e.g., pensions), as they can use it to "equitize cash," or park money for short periods of time.
- **Taxes:** Both ETFs and mutual funds distribute realized capital gains every year to minimise or eliminate entity level taxes. But in practice, ETFs often distribute fewer capital gains than comparable mutual funds, due to ETFs' ongoing redemptions of investors in-kind so retail investors may prefer ETFs.
- **Access:** ETFs offer cost-effective access to an array of investment options for any investor with a brokerage account, as well as the ability to short-sell for investors looking for the inverse exposure of an ETF.
- **Transparency:** ETFs generally must disclose their holdings on an intraday basis, while mutual funds generally have to do it quarterly. While this places an administrative burden on the ETF sponsors, it's a benefit for investors.

In addition, there are a number of sub-segments that can serve as distribution channels, including robo-advisors⁸, platform providers, wirehouses⁹, banks, trust companies, independent broker-dealers, and direct-to-consumer providers.

When it comes to developing a distribution strategy, the three primary ways to enter the ETF market are launching your ETF:

- Independently
- As a sub-adviser with an existing ETF sponsor
- As a sub-adviser to an ETF platform provider

Here are some key points to keep in mind when developing your distribution strategy. Getting attention - and shelf space – at broker-dealers often depends on a product's size, liquidity and track record. Smaller ETF sponsors will likely have distribution challenges until they gain some credibility and market share through the performance of their funds.

On the other hand, fund providers that already have strong distribution channels in certain segments can often leverage those channels to market their ETFs.

Just because you distribute a mutual fund through one channel doesn't necessarily mean that the same channel has the appropriate technology platform and expertise to distribute your ETF.

The right execution strategy

It's essential that you have all phases of your ETF game plan locked down tightly before launch - from investment strategy to operations to sales and distribution. Generally there are about 18 months after launch to get to the next level, where sales become self-sustaining.

If you don't hit that mark within that time frame, your chances of being successful dwindle markedly, and perhaps you would be advised to shut it down otherwise, you run the risk of being there for a long time stuck at the same level. And the cost and effort of keeping the ETF going is probably not worth the time and expense.

How do you gauge whether you're on the right track?

A good indicator of ETF success is reaching at least \$100 million in assets within the first year, and then continuing to build momentum from there. But only a small percentage of new fund launches get to that level.

The bigger players in the ETF space have strong product portfolio management and a good feel for knowing when to go for it or leave. But smaller ETF sponsors who are determined to keep their fund alive may have to partner with someone, or hope that they get enough shelf space from some platform providers to drive sales.

⁸ A robo-advisor is an online wealth management service that provides automated, algorithm-based portfolio management advice without the use of human financial planners. It typically offers only portfolio management services, and not tax, retirement or estate planning.

⁹ Wirehouses range from small regional brokerage firms to giant full service firms with offices around the world that share financial information, research and prices. For more information, see [Wirehouses still attracting adviser talent, Investment News, 4/8/2015](#).



In order to ensure that you are prepared to execute quickly and effectively against your game plan:

- Understand the ETF landscape thoroughly, including your competitors' strengths, weaknesses, and tactics
- Offer a product that connects with investors, and develop a compelling "elevator speech" to explain the product to appropriate audiences
- Realistically assess the fixed costs and run-rate that it will take to launch and maintain the ETF for at least 18 months (or until it gains traction). In addition, consider the amount and timing of seed capital to show activity in the fund, versus seeding the entire amount at launch
- Make sure that you have the right talent, experience, and track record to execute on the selected investment strategy
- Lock in your operations, technology, and sales platforms, and your custodian and distribution contracts
- Create a competitive and predictable fee structure
- Build in options that allow you to be more nimble and agile than your competitors

If an ETF sponsor executes its game plan successfully, it can create a niche and potentially lock out the competition in that area. A key component of successful execution is closely tracking the ETF's index, while also developing and evolving a strategy to mitigate investor tax exposure.

Final thoughts

Due to their overall efficiency, which growth and competition will continue to drive, ETFs are expected to command increasing market share in the investment community among both institutional players as well as the consumer market. This article sets out some of the reasons why this is so, and also offers suggestions on how fund managers and ETF sponsors can bolster their likelihood of success.

The ETF landscape is not without some potential storm clouds on the horizon, however. The so-called "flash crash" that occurred in August 2015 has raised the eyebrows of regulators at the U.S. Securities and Exchange Commission.¹⁰ The crash saw the market price of many ETFs fall below their underlying value, in some cases substantially. This resulted in significant losses for investors who sold their ETF shares at the market price.

¹⁰ [Should You Fear the ETF?](#), MarketWatch, 12/27/15



ETF tax efficiency

Fact or fiction?



US ETFs are widely regarded as being more tax efficient than comparable mutual funds. This is one of the core selling points that ETF sponsors raise when discussing the “ETF advantage.”¹ And, it often is true.

It is essential to understand why US-based ETFs are tax efficient before you include them in any investment strategy. Otherwise, you may end up holding an ETF whose tax advantages have been overhyped.

ETFs do hold great attraction and offer significant benefits, but, from a strictly tax point of view, the tax efficiency of an ETF or a mutual fund is driven by four key factors:

- Operational infrastructure
- Portfolio management and investment mandate
- Overall market conditions
- Investor behaviour

Whether investors buy ETFs or mutual funds, they should keep their “eyes on the ball” and focus on the following:

- **What is their net return?** An ETF or mutual fund that permits investors to realise higher net returns over the long run may be the right choice, irrespective of tax efficiency in the short run.

- **Is the fund well-managed?** Smart choices by a fund sponsor may improve the tax efficiency of any fund, regardless of whether it is structured as an ETF or mutual fund.

Let’s take a closer look at the drivers of tax efficiency for American ETFs, and we will update you separately regarding tax treatment for Irish and UK ETFs.

Operational infrastructure

Both ETFs² and mutual funds must:

- Recognise gains, losses and income at the fund level, but they’re not taxed at the fund level on these items to the extent they are distributed to shareholders

- Distribute net-realised gains and income to investors, which are then generally taxable to the investors as ordinary dividends, long-term capital gain dividends, exempt interest dividends, or returns of capital.

In addition, both ETFs and mutual funds may **redeem shareholders on an in-kind basis**.³ Generally, this means that when an investor wants to redeem ETF or mutual fund shares, the distributor could exchange the shares to be redeemed for a basket of securities held by the ETF or mutual fund.

In the case of ETFs, only certain institutional investors (called “authorised participants”) may redeem shares directly from an ETF. Conversely, the institutional investors are also allowed to contribute securities to an ETF in exchange for newly issued ETF shares. Retail ETF investors, on the other hand, must purchase or sell ETF shares through a broker or another intermediary.

In the case of a mutual fund, there are ordinarily minimum size requirements for redemptions in kind (say 50,000 or more shares). What’s more, retail investors typically want to be redeemed in cash, not securities. So, when mutual funds do use in-kind redemptions, it tends to be only for large redemptions by institutional investors.

¹ Why Are ETFs So Tax-Efficient?, ETF.com

² Most ETFs are taxed as a regulated investment company (RIC). For the purposes of this article, we are comparing this type of ETF—a RIC ETF—to a mutual fund. However, it should be noted that an ETF may be structured for tax purposes as a RIC, C corporation, partnership, trust, or some combination of the foregoing. We are also assuming that the mutual fund or ETF shares are held in a taxable account, and not in a retirement or other tax-deferred investment.

³ However, certain types of securities—for example, derivatives or thinly traded securities—can’t be redeemed by an ETF on an in-kind basis. In this case, the ETF typically will include cash or other securities, as needed, to complete the redemption. Other types of exchange traded products (ETPs), which are not discussed in this article, such as closed-end funds, do not permit in-kind redemptions.

Redeeming shareholders on an in-kind basis means that ETFs and mutual funds don't have to liquidate securities to raise cash to pay the redeeming investor.⁴ In addition, the ETF or mutual fund can use appreciated securities for the in-kind redemption.

In this case, provided certain requirements are met, neither the ETF nor the mutual fund recognises gain on the transaction. Thus, there is no need for the funds to make a taxable distribution of gains to its other nonredeeming shareholders. (However, redemptions in kind are not permitted to trigger losses for an ETF or a mutual fund.)

The redeeming investor, on the other hand, must recognise gain or loss just as if the investor had been redeemed in cash. The amount recognised is equal to the difference between the tax cost or "basis" of the investor's ETF or mutual fund shares and the fair market value of the securities received.

KPMG observation: While both ETFs and mutual funds are permitted to use in-kind redemptions, ETFs are structured so that in-kind redemptions are the primary redemption mechanism. As a result, there typically are more opportunities for ETFs with appreciated and liquid portfolio holdings to defer gain recognition by shareholders.

Portfolio management and investment mandate

An ETF or mutual fund portfolio manager may make investment choices that are more or less tax efficient. For example, depending on the fund's investment mandate, market conditions and other factors, the portfolio manager may:

- Decide to "harvest losses" by selling underlying securities or indexes that have underperformed in order to offset or minimise realised gains in the fund
- Only sell securities with a higher cost basis in order to minimise any resulting gains
- Minimise investments in securities (such as derivatives or illiquid securities) that can't be redeemed on an in-kind basis
- Use cash on hand, or cash received from new investors and reinvestments, to meet redemption requests
- Effectively manage selling of underlying securities by taking into consideration holding periods to maximise long-term capital gains.

⁴Where a mutual fund does not redeem shareholders on an in-kind basis, the fund typically would use cash on hand and/or cash received from new investors to meet redemptions, and liquidate portfolio holdings only as necessary. And, in any event, realized gains may be offset by other losses in a fund's portfolio.

Tax efficiency, not tax avoidance

The deferral of gains at the ETF or mutual fund level using in-kind redemptions for appreciated securities generally doesn't alter the **total amount** of taxable gains to be realised when the shareholder ultimately sells or redeems his or her ETF or mutual fund shares (although it may have the effect of converting short-term capital gains to long-term capital gains).

Bottom line: While the in-kind distribution strategy may foster tax efficiency by deferring tax on gains, it generally doesn't enable those gains to escape taxation.

In some situations, tax efficiency may be less dependent on the nature of the investment vehicle - ETF or mutual fund - than the choices of the portfolio manager. In other situations, the portfolio manager may not have as many opportunities to enhance tax efficiency.

For example, relatively new types of ETFs, such as currency-hedged ETFs, may hold significant positions in derivatives, which can't be used for in-kind redemption requests. In the initial years, there may not be a sufficient reservoir of losses that can be used by the portfolio manager to offset any realised gains.

Another key factor impacting tax efficiency is portfolio turnover. Generally speaking, high portfolio turnover via the sale of the underlying securities creates more opportunity to trigger capital gains that must be distributed and potentially taxed to investors. This is particularly true in a rising market.

"Passive" funds that are designed to be more static and have less portfolio turnover, tend to be more tax efficient than those with actively managed portfolios and higher turnover. While this principle applies to both ETFs and mutual funds since many (although certainly not all) ETFs employ fairly passive index strategies, they tend to have lower turnover than actively managed mutual funds.

That being said, if a passive mutual fund were required to sell appreciated securities to meet redemptions, it could trigger large taxable gains for nonredeeming shareholders. This could be the case where, for example, a passive mutual fund is shrinking due to net shareholder redemptions.

KPMG observation: It should be noted that the perception of ETFs being a strictly passive product isn't set in stone. Some ETFs with index strategies are mandated to rebalance frequently. And the increasing number of actively managed ETFs may change this equation.

In addition some mutual funds are required to be managed in a tax-efficient way, which may cause the fund sponsor to adopt investment strategies to minimise capital gains distributions.

Overall market conditions

What's happening in the markets can also impact the ability of portfolio managers to achieve tax efficiency with ETFs and mutual funds. For example, when markets are generally flat but there's significant volatility—that is, the markets may rise and fall hundreds of points on a daily basis, but basically wind up at the same level over the course of a year—there may be more opportunities for portfolio managers to realise losses

and offset embedded gains in portfolio securities.

This can be done even without utilising the in-kind redemption mechanism," she added. "What's more, this type of market tends to help mutual fund managers achieve tax efficiency.

However, where markets are steadily rising, funds may hold mostly appreciated portfolio securities that generate taxable gains when sold to meet redemptions, for example. This means that a mutual fund is more likely to trigger gains to meet shareholder redemptions than an ETF, which primarily redeems investors on an in-kind basis.

KPMG observation: For the most part, markets have been on a consistently upward trajectory for more than 20 years which has made it more difficult for portfolio managers to manage funds on a tax-efficient basis without utilising the in-kind redemption mechanism, which, as noted, is primarily employed by ETFs, not mutual funds.

Investor behaviour

When investors purchase ETF or mutual fund shares, they acquire a cost basis in those shares, which fundamentally reflects the amount paid by the investor, plus transaction costs. And when the investors ultimately sell or redeem the shares, they generally are taxed on the amount by which the sale or redemption price exceeds their cost basis.

Following an initial purchase, an investor's cost basis in the ETF or mutual fund shares is reduced to reflect returns of capital, adjusted, as appropriate, to reflect corporate actions (such as a fund merger or stock split), and increased when the investor reinvests distributions from the ETF or mutual fund to acquire additional shares.

However, an investor's cost basis doesn't increase as the ETF's market price or a mutual fund's Net Asset Value (NAV) increases. It is also important to note that an investor's cost basis doesn't decrease as the ETF's market price or a mutual fund's NAV goes down. This also holds true for decreases in NAV due to distribution of dividends.

If, for example, an investor buys shares of a mutual fund or ETF whose market-derived price equals or is close to NAV before an ex-dividend date,⁵ the investor will:

- Pay current tax on the dividend distribution, and
- Have an unrealised loss in its shares because the tax basis will be higher than the NAV after the NAV is reduced for the dividend payment.

⁵ This is the date on which it is announced that a dividend payment will be made.

This is commonly referred to as “buying the dividend.” It is generally something for investors to avoid, particularly near the end of the calendar year when ETFs or mutual funds may make their largest distributions.

KPMG observation: In addition, the frequency—and aggressiveness—with which investors tend to buy and sell funds can have an impact on the fund manager’s ability to achieve tax efficiency.

This is particularly the case with mutual funds that do not use redemptions in kind as their primary shareholder redemption mechanism. For example, if a mutual fund has net cash inflows and growing assets under management, it may not be necessary for the portfolio manager to sell any underlying securities to meet redemptions by other shareholders.

However, where existing investors are exiting the fund and net inflows aren’t being replenished by new investors, or where an ETF is limited in its ability to use in-kind redemptions, such as where the ETF has significant holdings of derivatives, the portfolio manager’s hands may be somewhat tied; they’ll be forced to sell underlying securities without as much opportunity to achieve tax efficiency.⁶

Final thoughts

A winning team generally focuses on both the offense and defense and makes thoughtful decisions in designing a game plan. This is also a good approach when evaluating the tax efficiency of ETFs. It is true that ETFs are often more tax-efficient than mutual funds due to their routine use of in-kind redemptions. However, if the redemption feature is your primary focus, you may be overlooking some other important factors.

This includes determining whether a particular fund is **well managed** in terms of expense ratios, error tracking, investment mandates, and index methodologies, and what your **net return** will be.

To quote the legendary businessman and stock investor, Peter Lynch, “Know what you own and why you own it.”

⁶ Which ETFs Are Making Capital Gains Distributions This Year?, Morningstar, 12/2/15





ETFs versus mutual funds: The tax match-up

Below is a quick summary comparing ETFs and mutual funds, and their respective potential tax advantages and disadvantages:

Operational Infrastructure

- Both ETFs and mutual funds are permitted to use in-kind redemptions.
- But ETFs are structured so that in-kind redemptions are the primary redemption mechanism, so there typically are more opportunities for ETFs to defer gain recognition by shareholders.

Overall advantage – ETFs

Portfolio management and investment mandate:

- Investment choices: ETF or mutual fund portfolio managers may make investment choices that are more or less tax efficient, so tax efficiency may be less dependent on the nature of the investment vehicle—ETF or mutual fund – than the choices of the portfolio manager.
- Portfolio turnover: Generally, high portfolio turnover may create more opportunity to trigger potentially taxable capital gains for investors. ETFs typically—but certainly not always—employ fairly passive index strategies, so they tend to have lower turnover than actively managed mutual funds.

Slight advantage – ETFs

Overall market conditions

- Generally, rising markets during the past 20 years have made it more difficult for portfolio managers to manage funds on a tax-efficient basis without utilizing the in-kind redemption mechanism.
- In-kind redemptions are primarily employed by ETFs, not mutual funds.

Advantage – ETFs

Investor behaviour

The frequency—and aggressiveness—with which investors buy and sell funds can impact a fund manager's ability to achieve tax efficiency.

This is particularly the case with mutual funds that do not use in-kind redemptions as their primary shareholder redemption mechanism.

However, where an ETF is limited in its ability to use in-kind redemptions (e.g., the ETF has significant holdings of derivatives) the portfolio manager's hands may be somewhat tied.

Slight advantage – ETFs



Technical & operational success factors



In rugby, a vastly underrated and unappreciated key to success is the offensive line; it's the foundation of a great offense. You can have the world's best scrumhalf and props, but if you have an offensive line made of Swiss cheese, all that talent will not matter.

The same holds true for exchange traded funds (ETFs). You can have a brilliant product, but if your foundation - your technology and operations (tech and ops) - is substandard, your product isn't going to break through the line and score tries.

Here we take a look at some of the unsung - but critical - "players" involved in ETF tech and ops roles, the impact they can have, and the questions you need to ask before "drafting" them to be part of your team.

Background

ETF and Exchange Traded Note (ETN) products have crossed the \$3 trillion threshold in assets globally. Outside of the United States, ETFs account for nearly \$1 trillion of global assets and now exist in over 50 countries. With ETFs increasingly becoming components of retirement plans, robo-advisors, advisory accounts, institutional investing, and self-directed investing, it's likely that ETFs' growth will continue to accelerate.

The vast majority of ETF assets are considered passively managed ETFs.¹ However, the ETF industry is experiencing tremendous innovation in its offerings; for example, 2016 witnessed the first release of the Exchange Traded Managed Fund (ETMF), a hybrid product that trades like an ETF, but its portfolio is managed like an actively managed mutual fund.

But as noted earlier, without an effective tech and ops strategy, your ETF may experience scalability, performance, and/or regulatory issues. Errors or failures in tech and ops can have significant financial and reputational repercussions.

The roster of players

From an investor's point of view, ETFs offer tremendous simplicity for investing in a veritable supermarket basket of investments. They can simply open and fund a brokerage account and immediately start trading ETFs.

But what happens behind the scenes to bring ETF shares to market is far from simple. The process of creating - or eliminating - an ETF requires a complex ecosystem with careful orchestration among several financial

industry "players."

For the vast majority of ETFs, tech and ops functions are outsourced to third parties. Only the largest five or 10 ETF providers have the scale and technology proficiency to invest in, develop, and manage their own comprehensive platforms. And those large ETF providers who maintain their own tech and ops platforms are commonly service providers to other ETF providers. Because of behind-the-scene complexity of ETF operations, many new ETFs are brought to market through turnkey ETF outsourcers.

// In light of the dynamic growth of ETFs and the prevailing regulatory scrutiny, it is critically important that investment managers ensure their infrastructure and operations are sustainable, effective, and aligned with their product and distribution strategies. Seasoned professionals that provide tailored and thoughtful insights to help you accomplish this are of immense value to your organisation.

In choosing a service provider that's right for you, we recommend carefully considering whether it offers the right blend of experience and professionals with informed judgment, and is also willing to invest the time and resources necessary to furnish you with valuable insights. **//**

Jorge Fernandez Revilla
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¹ In Q1 2016, of the 1,836 ETFs listed on U.S. stock exchanges, only 136 were considered actively managed.
<http://seekingalpha.com/article/3965416-etf-stats-march-2016-17-births-17-deaths>

As a result, the biggest tech and ops decision for most ETF sponsors is how to select their various service providers. Each service provider will have different levels of:

- Operational services and support
- Functional levels of technology automation — Compliance and reporting capabilities

Our ecosystem illustration overleaf illustrates the various tech and ops service providers who inhabit the ETF playing field and a brief explanation of their roles. For a more detailed explanation of what they do and why they are important, please refer to the Glossary.

Selecting the right service providers

It is vital that you conduct vigorous due diligence with each service provider and ensure their tech and ops capabilities meet your current and future requirements.

Before you go about selecting your ETF service provider, there are six key business decisions that an ETF sponsor must make:

1. Who is going to administer your ETF? Will you be your own administrator or will you hire a third party? If hiring a third party, consider asking the following questions:

- What type of ETF indexes and trading strategies can you administer (e.g., passive or active)?
- What is the range of securities and investment components you can administer?
- What is your process for ensuring that you support and comply with applicable ETF regulations, including regulatory reporting and record keeping?
- What is your experience with administering global securities, derivatives, physical assets, real estate, leveraged or shorted positions, and other non-tradable assets?
- What other similarly sized ETFs have you done administration work for?
- What is your level of technology automation, and what processes are done manually?
- How does your platform support custom ETF baskets, negotiated ETF baskets, or partial ETF baskets (if applicable to your ETF)?
- Can you please explain your fee structure (including reoccurring and non-reoccurring fees)?

2. Select your fund counsel (i.e., legal counsel) to help you navigate regulatory registration and exchange listings. Consider asking the following questions:

- What is your experience in advising ETFs? What funds have you provided counsel or assisted in writing the prospectus?
- Which stock exchanges have you assisted with registration of ETFs?
- Have you facilitated exemptive relief with the U.S. Securities and Exchange Commission (SEC) and/or U.S. Commodity Futures Trading Commission (CFTC)?
- Which types of exchange traded products (ETPs) and other funds have you offered legal counsel (passive, active, ETMFs)?
- Do you have any conflicts of interest with any of the ETF's components?

3. Select the stock exchanges where your ETF will be primarily listed. Factors to consider:

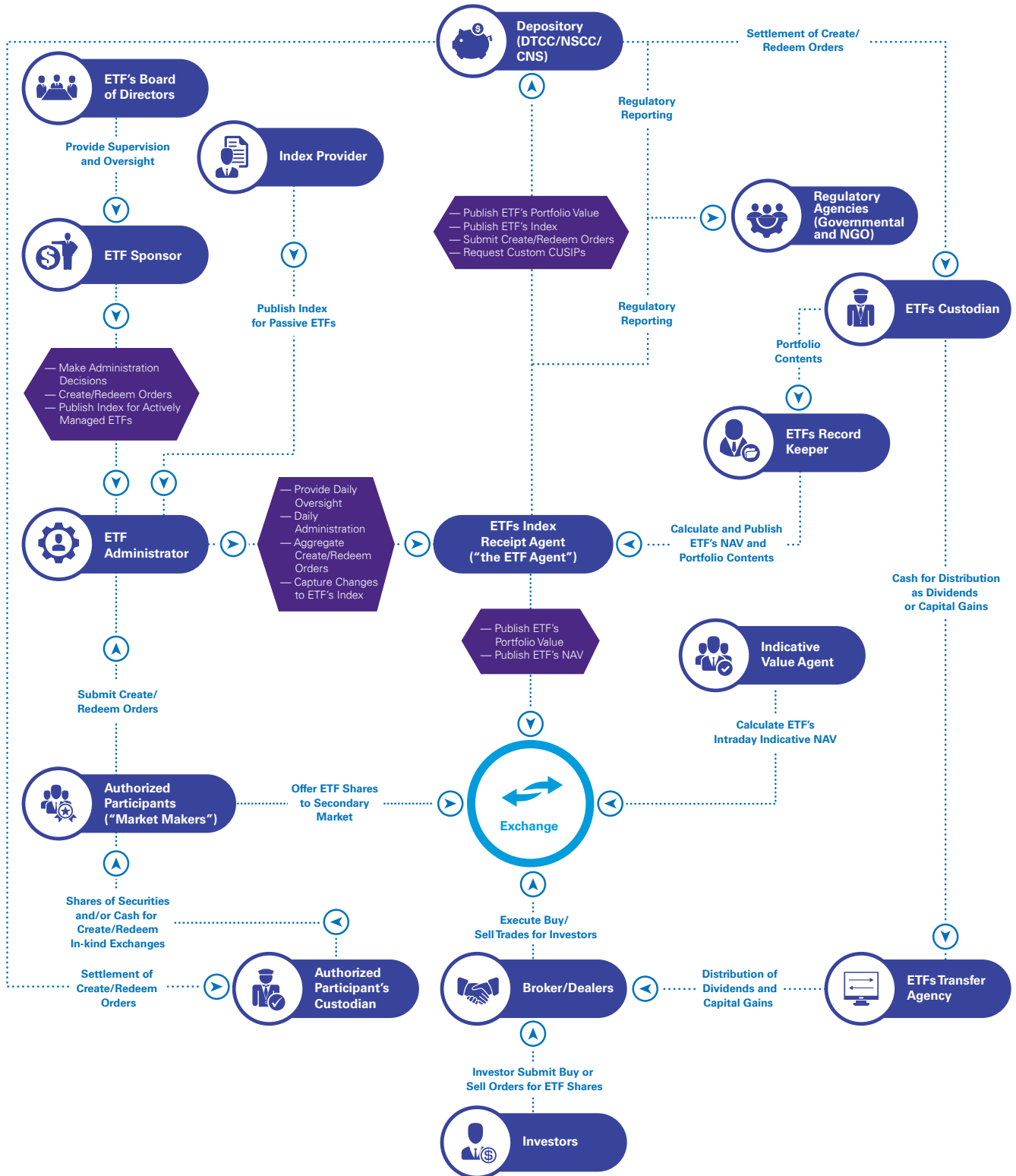
- What is the listing application process, and what are the agreement terms and fees?
- What services and software programs are offered to calculate an intraday indicative NAV?
- What assistance does the exchange provide with regulatory filings?
- What are the exchange's public reporting and disclosure requirements?

4. Select authorised participants to help make the market and provide liquidity for your ETF. Consider asking the following questions:

- Are you able to take a lead role in market making?
- What coverage do you provide with any of the ETF's components?
- What is the level of liquidity that you can provide?
- Do you have any conflicts of interest with any of the ETF's components?



ETF industry ecosystem



5. Select an index receipt agent, custodian, record keeper, and transfer agency. Consider asking the following questions:

- Can you explain how your roles and responsibilities will be different from mine (as ETF sponsor)?
- How do I monitor the day-to-day operational fulfillment activities that you will be providing?
- What operational key performance indicators will you measure and report?
- What investments are you making to modernise your technology systems, and what is your plan for continuous IT improvement?
- What processing steps are conducted manually?
- How do you ensure that your platform complies with applicable ETF regulations, including regulatory reporting?
- What range of securities and investment components does your platform support? What does it not support?
- What are the quality control and testing processes for your system enhancements?
- What are your disaster recovery and business continuity capabilities, and how often are they fully tested?
- Can you explain how your platform will support the scale and volume of expected trades we will be making?
- What other similarly situated ETF clients are you currently serving?

6. Decide whether to act as your own ETF distributor or hire a distributor service. If contracting a distributor service, consider asking the following questions:

- What kind of experience do you have in distributing and promoting our style of ETF?
- Will you have any conflicts of interest in promoting our ETF versus your other clients? If so, can you explain what they are and how you will resolve it?
- What is the range and abilities of your sales force?
- On what basis are you compensated?
- How do you manage and track campaigns and other marketing efforts?
- Can you explain your fee structure (including reoccurring and non-reoccurring fees)?

Potential and promise: Passive ETFs, active ETFs, ETMFs, and ETNs

There are four types of ETFs currently being sponsored and sold:

1. Passive ETFs: They make up the bulk of ETFs being sold today. The ETF is composed of securities that match the contents of a published index (e.g., the S&P 500).

2. Actively managed ETFs: Recently gaining traction are actively managed ETFs. In this case, the ETF index is customised, typically by the ETF sponsor. The ETF sponsor may change the ETF's index on a daily basis; thus, it is actively managed.

However, active ETF managers are required to publish their index and portfolio contents every day; this has discouraged many active managers from sponsoring an ETF.

3. ETMFs: This is the newest evolution of an actively managed ETF. With an ETMF, the investment manager has the discretion to withhold disclosure of index contents from the public; thus, they are commonly referred to as "non-transparent ETFs."

ETMFs provide active managers with the ability to make investments privately without the marketplace being aware of what security positions are being taken.

4. ETNs: ETNs trade and operate like ETFs, but they actually may be structured as debt instruments offered by, and subject to, the solvency of the issuer. Investors do not have ownership rights to underlying ETN assets, but are eligible to receive investment income generated by those assets.

Uncertain future for ETMFs: In part because the regulators and exchanges have not provided clear guidance on ETMFs, only a limited number of brokers have been willing to devote resources to develop the custom trading interfaces needed to support this type of ETF. So, while they hold huge potential, it is unlikely that ETMFs will take full flight until the financial industry comes to a consensus on how they will be traded.

Conclusion

The ETF market will continue to grow rapidly, perhaps doubling in size within the next eight years and rivaling mutual funds. Additionally, the ETF market is likely to experience tremendous innovation for years to come, with new asset classes, new investment styles, and new international investment opportunities.

But whether you are considering entering the ETF market for the first time or expanding your existing ETF offerings, it is imperative that you have an effective tech and ops strategy. Your platforms and your service providers' platforms must be in place and ready to service whatever types of ETFs you are planning on offering if you hope to be successful in the long term.





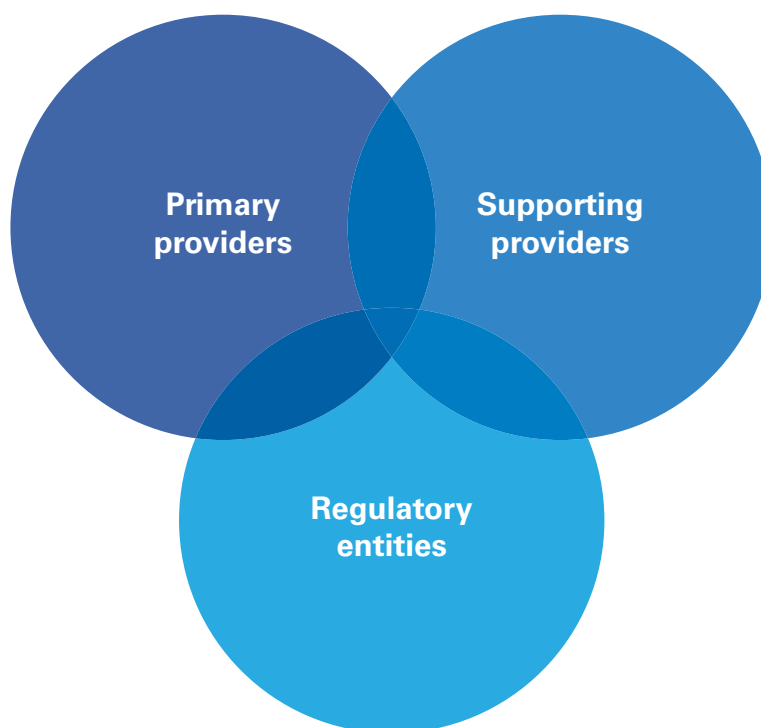
Glossary

Glossary – Ecosystem of ETF industry roles

The roles in the ETF industry represent an ecosystem of different and specialised operational services and technology capabilities. Only a handful of the largest ETF sponsors have the infrastructure and resources to build and support a comprehensive ETF platform with all the required roles and functions.

Mid-sized and smaller ETF sponsors typically will utilize outsourcers to provide the vast majority of the technology and operations in the ETF ecosystem. Even among the different ETF roles, specialization is necessary to achieve economies of scale in order to keep fees low for investors.

For purposes of simplicity, we have grouped the ETF roles into three groups:



Each of the players in these groups has very specific and complex operational functions and technological capabilities. KPMG has the experience and ability to work with each of these different groups and assist with:

- Transforming platforms
- Improving levels of automation
- Implementing innovative data management and analytical capabilities.

Index receipt agent (aka ETF agent) – The index receipt agent has an essential and distinct role in that it provides the coordination and linkage of the various ETF roles. It maintains a platform that provides links and interfaces among the:

- Sponsor
- Index provider
- Authorised participants
- Exchanges
- Depository
- Regulatory entities.

On a daily basis, the index receipt agent:

- Gathers updated indexes
- Collects and publishes “create and redeem” baskets
- Assists with publishing the NAV
- Interfaces with the depository.

Index receipt agents typically offer bundling of other services, including the roles of administrator, distributor, custodian, record keeper, fund counsel, tax advisor, treasury/cash management, and/or transfer agent.

Depository - The depository is the central mechanism by which ETF information is registered and shared to the world. In the United States, the Depository Trust & Clearing Corporation (DTCC) provides this key role by:

- Gathering and publishing all ETF indexes
- Automating the ETF create/redeem process among ETF participants.¹

DTCC provides a trade settlement function in its continuous net settlement (CNS) service for the create/ redeem process. DTCC also provides surveillance reports to the industry about ETF activities.²

Authorised participants (aka market makers) – Authorized participants (APs) are often large banks or dedicated trading firms that provide market making and liquidity services for ETFs. APs initiate the:

- Create process to create new shares of ETFs
- Redeem process to eliminate ETF shares from the market.

To create new shares of an ETF, APs exchange securities and cash with the depository in return for the corresponding amount of new ETF shares from the depository. In return for providing liquidity, APs are compensated by receiving the arbitrage value between the ETF and its underlying assets during the create/ redeem process. In addition, ETF sponsors may act as an AP for their ETFs concurrently with other APs.

Stock exchanges – ETF sponsors must apply and receive permission to register a new ETF with a stock exchange. This normally occurs after the SEC has granted permission to start the new ETF. Exchanges have a number of rules to which the ETF must adhere in order to trade on it.

Exchanges may be able to calculate an ETF’s indicative intraday price or require that the ETF utilise a third-party service to do the calculation. Also, in the secondary market, exchanges support the trading of ETFs among investors.

Custodian – The custodian’s primary role is to hold and safeguard ETF assets. Custodians also provide trade processing, settlement, custody, and clearing for the create/ redeem process. Some custodians provide securities lending, collateral management, and tax preparation services.

Record keeper – Record keepers provide fund accounting, valuation, and NAV calculations for an ETF. Note that index receipt agents frequently provide a bundling of record-keeping functions.

Transfer agencies – Transfer agencies keep track of which brokerage firms have custody of the various ETF shares, as well as the investors who own the shares. They work in close coordination with custodians.

¹ <http://www.dtcc.com/clearing-services/equities-trade-capture/etf.aspx>

² <https://www.dttclearing.com/learning/clearance/topics/exchange-traded-funds-etf/about-etf/etfs-and-cns-processing.html>

Secondary ETF roles

Distributors - Distributors have the role of conducting sales support for an ETF. For example, the distributor will reach out to brokerage firms, registered investment advisors (RIAs), retirement plan owners to:

- Introduce the ETF to them
- Support inclusion of the ETF into sell-side firms' ETF inventories.

In some cases, the ETF sponsor will act as the distributor, especially if it has existing fund wholesaler resources. Smaller ETFs, however, are more likely to utilise the services of a distributor since they typically lack a dedicated sales force.

Independent auditor - Each ETF must have an independent auditor who will audit the ETFs in adherence to accounting and regulatory requirements.

Fund counsel - As noted above, ETFs must register with an exchange and file an application with the SEC. ETF sponsors need to retain legal counsel - generally one that specialises in mutual funds and ETFs - to help navigate the registration and application processes.

Advisors - This term is used to refer to brokers and RIAs who provide investment advice about ETFs to investors.

Regulatory roles

The regulators are the governing entities that oversee and enforce ETF regulations. Regulatory agencies are often supported by the monitoring and reporting that is conducted by exchanges and the depository.

SEC: The SEC is the primary regulatory body overseeing the ETF market in the United States. The SEC issues regulations and also has an examination and enforcement arm to administer fines and other disciplinary action for rule violations.

CFTC: The CFTC oversees ETFs that contain certain derivative securities and/or commodities funds. Similar to the SEC, the CFTC investigates and prosecutes alleged violations of the Commodity Exchange Act and Commission regulations.

Primary providers

ETF sponsors (aka ETF owner, ETF advisor, ETF issuer, and ETF fund manager) - It all starts with the ETF sponsor, who is the owner, originator, and primary portfolio manager for an ETF. The sponsor:

- Establishes the ETF's investment strategy and prospectus
- Applies to regulators and stock exchanges (see above) for permission to issue a new ETF.

From a technology and operations perspective, the sponsor has very important decisions to make in terms of selecting all the service providers to fulfill all of the other needed roles in the ETF ecosystem.

Index providers - The primary portfolio construct for an ETF is represented as an index, such as the S&P 500 or Dow Jones Industry Average. The index provider selects the underlying investments and their weights within an ETF. The portfolio of the ETF's underlying investment components are packaged into an index and then sent to the index receipt agent, who plays another important role in the ETF ecosystem.

The frequency of component changes within an ETF index ranges from daily to annually.

- For passive ETFs, index providers are often firms who specialise in publishing widely used indexes, such as Dow Jones, a McGraw Hill Financial company, who publishes the S&P 500 index.
- For active ETFs, it is common for the ETF sponsor or designated sub advisor to act as the portfolio manager and index provider.

ETF administrators - Day-to-day administration of ETF operational functions is provided by the administrator. The administrator coordinates:

- Technology services
- Operational services
- Financial administration
- Compliance oversight.

Some large ETF sponsors function as their own administrator, but most ETFs outsource this role to a dedicated service provider with a highly scaled and efficient platform to service many ETFs. ETF administrators typically offer a bundle of other services and roles, including the index receipt and/or distributor role.

Why KPMG?

People make the difference, and we have the best people.

The roles in the ETF industry represent an ecosystem of different and specialised operational services and technology. In professional services, people make the difference, and we have the best people. We are commercially focused, experienced in public company reporting and investment management, and we have unrivalled technical competence. We currently audit 30% of FTSE 250 companies, and 43% of Irish listed plcs, and are represented on EFAMA's working group on ETFs.

Our investment in technology, combined with our team of fund experts, has enabled us to implement robust and efficient audits.

Ireland has a worldwide reputation as a leading regulated international jurisdiction for servicing the funds industry. In the last five years alone assets under administration in Ireland have almost doubled from EUR1.8 trillion to EUR3.8 trillion.

ETFs are one of the fastest growing asset classes with Irish domiciled ETFs representing 53% of all European ETFs. Approximately EUR230 billion assets are currently held in Irish domiciled ETFs with this number expected to double, if not triple, in the next five years.

We know ETFs, their operational complexity, their regulatory environment and we use that knowledge to apply our cutting edge Data & Analytics tools to provide enhanced comfort and assurance.

Data and analytics powered audit

Our audit methodology has responded to the era of Big Data through the use of innovative Data & Analytics ("D&A") tools.

A KPMG data and analytics powered audit will provide you with enhanced audit quality, actionable insight, and the ability to leverage your technology instruments with those of KPMG. Our iNAV tool helps to identify potential NAV errors in funds, and iRadar offers an unparalleled level of insight into market pricing.





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