EXCHANGE TRADED FUNDS

A GROWING INDUSTRY WITH MANY WINNERS



INTRODUCTION

Exchange-traded funds (ETFs) have evolved into one of the most prevalent and attractive investment vehicles for multiple investor types for their trading, tax efficiency, and relatively low-cost structure. The current economic environment of low interest rates, increased volatility, high demand, and deregulation also is enticing many big players to join this space.

The rise of active ETFs and specialized ETFs (e.g., ESG focused) provide investors with a range of possibilities to generate revenue and match their investment strategy. As a cheaper and more liquid version of traditional mutual funds, ETFs are a good place to deposit excess cash. The net flow of money into U.S. exchange-traded funds exceeded \$500 billion for the first time ever in 2020, passing 2017's record tally by \$40 billion, according to the latest data from State Street Global Advisors. Meanwhile, mutual funds had a \$300 billion outflow.

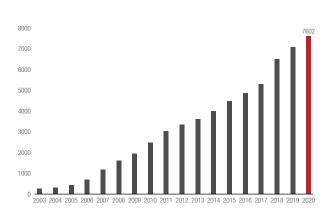


Figure 1 – Total Number of ETFs Worldwide

RISE IN ETF PRODUCTION

Over the past 10 years, there have been an increasing number of ETFs available to investors in the US. They have evolved from a simple passive index tracking investment vehicle to one that can be active and specialized. In 2010, there were 2,500 ETFs globally. By 2020, that number more than tripled, to 7602 different ETFs.³

One reason for the continued growth in ETF sales is due to changes in how financial advisors (FAs), whose primary business is financial advisory services to retail investors, charge for their work. As FAs have moved toward fee-based payment and away from commission-based payment, there has been an increase in low fee ETFs, allowing FAs to maintain compensation acceptable to clients via lower overall fees.

- 1. https://www.barrons.com/articles/etfs-set-a-record-as-net-inflow-of-cash-exceeds-500-billion-51609970699
- 2. https://www.barrons.com/articles/etfs-set-a-record-as-net-inflow-of-cash-exceeds-500-billion-51609970699
- 3. https://www.statista.com/statistics/278249/global-number-of-etfs/

PLAYERS IN THE ETF INDUSTRY

There are three primary types of players in the exchange-traded funds industry.

1. ETF issuers create a specific ETF that follows a certain strategy or tracks a benchmark (either a stock index or a commodity such as gold). They charge a management fee based on the assets in the fund. Examples of the largest ETF issuers include:

I. BlackRock: \$1.55 trillion AUM

II. Vanguard: \$1 trillion AUM

III. State Street: \$640 billion AUM

IV. Invesco: \$203 billion AUM

V. Charles Schwab: \$142 billion AUM

2. Authorized participants (APs) serve as the intermediary between the end investor or market maker and the ETF issuer. They are the distribution mechanism for ETFs. APs must be approved by the ETF issuer, allowing them to redeem shares in the primary market. ETF issuers define a basket of securities, amount of cash, or combination that is needed for one share of the ETF. The AP will then receive the defined

basket from Market Makers and exchange them with the ETF issuer to receive ETF shares for their large institutional investors or individual investors looking to access the primary markets. Examples of the largest APs in the US are:

- I. Bank of America
- II. Citigroup
- III. Goldman Sachs
- IV. JP Morgan
- V. Morgan Stanley
- VI. UBS Securities
- 3. Market Makers provide APs with the basket of securities needed to create or redeem shares. They then provide units for sale on stock exchanges at asking prices or they post bid prices on them for investors looking to sell, providing liquidity, and capturing flow revenue. Market Makers play an important role in the pricing of the ETF and aim to reflect the value of the underlying securities in the fund. APs can also serve as Market Makers. The predominant Market Makers are Jane Street Capital and Susquehanna.

REGULATORY CHANGES HAVE POSITIVELY IMPACTED ETF ISSUERS

In September of 2019, the SEC passed Rule 6c-11 (known as "the ETF Rule,") allowing new ETFs to come to the market without obtaining an exemptive order — a specific 'green light' order from the SEC for each issuance — so long as ETF issuers provide daily portfolio transparency on their website and disclosures regarding historic information such as bid-ask spreads.

This "ETF rule" and the ability to create custom basket policies provides ETF issuers with much more flexibility and efficiencies:

- Saves nearly 6 months and \$25,000 for each new ETF issued
- Permits for the custom creation and redemption of baskets of securities
- Allows for potential tax benefits
- Makes it easier for companies and investors to understand transaction costs associated with ETFs⁴

The SEC also allows active ETFs to have less transparency in their holdings than before. In the past, ETFs were required to disclose all their holdings each day. Now, they are required to disclose just some of their holdings daily, enabling ETF issuers to protect their proprietary investment strategies.

As a result of these changes, supply increased by 22% and new issuance of ETFs increased by 25% in 2020. New companies are looking to enter the space, including American Funds, Wells Fargo, Federated Investors, and Dimensional Fund Advisors.⁵

In 2020, large financial services firms such as T Rowe Price and BNY Mellon hit the market offering four and eight different funds, respectively. Launching its first ETFs and entering a market traditionally known as passive was a major milestone for T. Rowe Price, a company that traditionally focused on active management. T. Rowe Price had explored offering their investment strategies in an ETF but wanted to do so in a way that did not compromise their established strategic investing approach and protects their existing shareholders. The ETF rule allowed them to do just that and bring a new way to access their investment capabilities.⁶ Some examples of mutual fund managers converting to ETFs include:⁷

- Dimensional Fund Advisors
- Guinness Atkinson Asset Management
- Nottingham Company
- Dimensional Fund Advisors (Mutual fund increasing their offerings to also include ETF)

^{4.} https://www.sec.gov/rules/final/2019/33-10695.pdf

^{5.} https://www.etf.com/etf-watch-tables/etf-launches?nopaging=1

^{6.} https://www.etftrends.com/active-etf-channel/t-rowe-price-on-entering-the-etf-industry/

^{7.} https://www.nytimes.com/2021/01/15/business/why-are-some-mutual-funds-changing-into-etfs.html

CHANGES IN ETF DISTRIBUTION

ETF volumes have grown among distributors that compete on cost with standardized "model portfolios" or "home office portfolios."

More distributors are entering the market and improving their platforms, simply due to the high-end client demand and the large number of ETFs on offer. This trend does not look likely to end in the new post-pandemic normal as ETFs are such a popular investment choice.

However, large distributors have less use for extensive ETF offerings, as the large institutional clients they serve (such as pension funds), or active advisory services have buying power to negotiate better fee structure than an ETF and may use them only to reduce cash drag.⁸

CHANGES IN MARKET MAKERS

A confluence of factors is leading large investment banks including Société Générale, Citigroup, JPMorgan, Goldman Sachs, HSBC, and BNP Paribas⁹, to expand into market making – a sector of the ETF business that has previously been dominated by Susquehanna and Jane Street.

Key reasons include a bank's ability to:

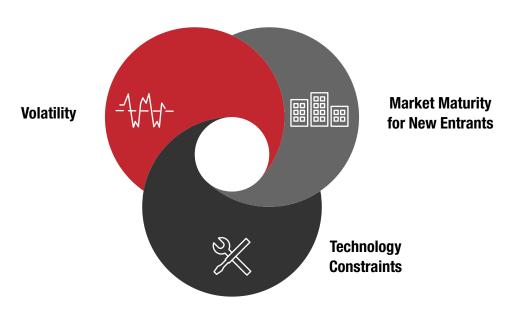
 Leverage existing pricing and trading infrastructure to price underliers and mitigate pricing risk.

- Vertically integrate a segment of the ETF market that provides synergies, as banks can also act as participating agents, distributors, financial advisors, and issuers put excess capital to productive use as collateral.
- Make "portfolio trades" directly out of their inventory to maintain inventory levels develop their pricing infrastructure to become increasingly competitive on spreads in markets where the price of the underlying is uncertain.

^{8.} https://www.ipe.com/-briefing-pension-funds-and-etfs-still-in-the-future/10006464.article

^{9.} https://www.ft.com/content/85bcec6d-2336-3758-9584-9fbc9b5c0f67

RISKS AND CHALLENGES IN THE ETF SPACE



Risks & Challenges in the ETF Space

Volatility

The systemic risk of markets can be most quickly and visibly recognized in the highly liquid world of ETF markets. That is why ETFs, with their high trade volumes, are seen as early and accurate gauges of overall health of the various markets that make up their underlying assets. Some salient recent examples include the COVID sell-off and the 2010 flash-crash.

If the volatility is too high, it could possibly lead some Market Makers and those who support them leave the space. ETF products are evolving to mitigate some of these risks by embedding options that buffer the downside risk in exchange for lower yields. However, systemic risk is sometimes preferred to earn higher returns and is a permanent feature of ETFs. The same risks apply on a smaller scale for ETFs specialized to give exposure to specific regions or asset classes whose systemic risk are more prominent.¹⁰

ETFs can trade during periods of time when the underliers are not actively trading (e.g., a China ETF trading on a US exchange when the Chinese stock market is closed). This means that the market maker must assume the risk that the price of the ETF is trading at a different price than the correct price of its components. For investors, this risk can manifest in price lag and volatility. The market maker may also require higher spreads during periods of volatility and uncertainty around prices of underlying.

Risks of Market Maturity for New Entrants

As industries mature competition drives down cost and fees. Few key players can specialize to the point where their costs are low enough to be profitable given the low prices, and the opportunity for new entrants drops. ETFs are different in that the maturity of one stakeholder will lower the barrier to entry for specialization

^{10.} https://www.etftrends.com/buffered-etfs-a-comprehensive-guide/

of others. ETFs have a paradoxical growth – the more key firms can dominate in one space of the ETF supply chain, it becomes easier for other firms to specialize. This is further enhanced by the specialization of investment preferences of the end clients.

As the issuing of ETFs, market making and distribution becomes increasingly competitive, and the costs associated with ETF markets drop. This drop in costs leads to an increase in the number of offerings and the types of ETFs available.

This increase in the competitiveness of the market maker side also leads to an increase in the price stability and reduction of transactions costs, which makes ETFs more attractive to investors.

Technology Constraints

Pricing is the key technology component to get right. That is why the largest infrastructure spend is for the technology for pricing ETFs when the underliers are not trading. The technology required to be a market participant on the issuance or distribution side are associated with operational cost savings. While existing platforms may be able to perform settlement and books and records, without the complete front-to-back technology platform (pricing, risk, etc.), especially with volatility, firms may suffer losses if they have too high exposure at the wrong time.

Due to the high volumes of ETF trading, the ETF issuers may want to improve the data metrics around ETF demand, to attract interest from the distribution side.

CONCLUSION

What began as a way to replicate index funds has grown to incorporate different asset classes and investment strategies. ETFs are becoming an umbrella term for a whole host of increasingly specialized vehicles driven by market competition and investor demand.

The market is creating wins for all those in the ETF supply chain – from the issuers that create the many ETFs on offer; the APs

that generate revenue from their distribution; the Market Makers that take advantage of liquidity opportunities, and the financial advisors that offer these cheaper investment products to retail customers.

Is your firm looking to be part of this growing industry?

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