iSHARES INVESTIGATES: ETF MARKET REALITIES

Answers to 10 popular questions about ETFs

Authors

Samantha Merwin, CFA
Head of ETF Markets Advocacy

Shreya Adiraju
ETF Markets Advocacy, US

Alec Woodworth, CFA
ETF Markets Advocacy, US

Rajat Tiwari
ETF Markets Advocacy, EMEA

Winnie Khattar
Head of ETF & Index Investing Market Structure, APAC

1. How do ETFs impact market liquidity?

Exchange-traded funds (ETFs) are unique; they provide exposure to a diversified collection of assets, like a mutual fund, but trade on exchange, like a stock. This structure makes the liquidity of ETFs unique, too.

Liquidity refers to the ease of buying or selling a security. ETFs have two layers of liquidity: *primary* market liquidity, which is provided by the underlying securities or instruments of the ETF, and *secondary* market liquidity, which is provided by the ability to trade ETFs on exchange.

This means that ETFs are **net contributors** to market liquidity. At a minimum, an ETF will be as liquid as its underlying securities or instruments; often, however, ETFs provide even greater market liquidity than their underlying instruments.

2. Do ETFs drive the direction of markets?

Given the size of some of the largest ETFs, one might think that buying and selling within those funds significantly moves market prices.

In fact, asset allocation decisions made by asset owners, such as pension funds and individuals, drive flows into different asset classes, sectors, and geographies.

Their allocation decisions are guided by factors such as macroeconomic developments (like global interest rate policy), risk preferences, and investment horizon.

ETFs are just **one way** for investors to express their views about the market. If ETFs didn't exist, investors could use other tools, like single stocks, mutual funds, and derivatives.

3. Do ETFs increase market volatility?

Typically, no. In fact, ETFs globally have acted as "**shock absorbers**" during many volatile trading sessions as buyers and sellers transacted on the exchange, at real-time prices, without having to trade the underlying stocks and bonds.[1]

What's more, since ETF shares are traded directly by buyers and sellers on-exchange, an ETF can circumvent "forced selling," something a mutual fund may need to do when investors want to sell their shares. This means that most ETF trading occurs without transactions taking place in the underlying securities. For more information about the differences between ETFs and mutual funds, please see the end of this document.

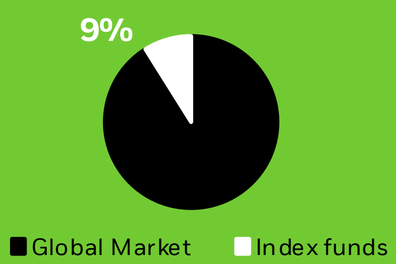
All figures in USD unless otherwise noted.

4. How big is the index market?

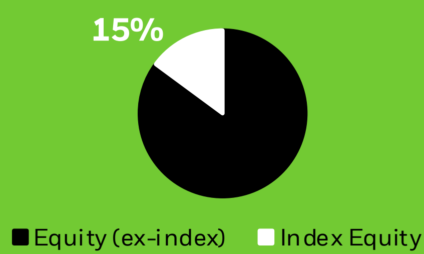
There are roughly $22.4 trillion of index assets worldwide ($15.7 in equity and $6.6 in fixed income).[2] This means that index assets, including ETFs and mutual funds, represent just under 10% of the global market capitalization, or dollar value of the global market.[3]

Even within the United States—the largest index market—index assets are a **fraction** of the total financial market. Approximately 25% of the total assets invested in U.S. equities are in U.S.-listed equity index products.[4] In fixed income, just 5% of the total U.S. bond market is in indexed assets.[5]

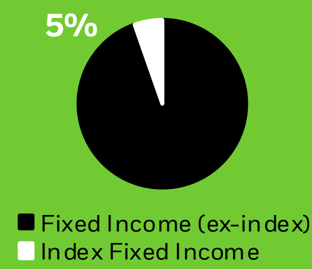
Global AUM



Global Equity AUM



Global Fixed Income AUM



5. Are all exchange-traded products (ETPs) the same?

While all exchange-traded products share certain characteristics, some have embedded structural risks that go beyond the scope of "plain vanilla" ETFs.

Generally, a "traditional" ETF is a publicly offered investment fund that:

- **Trades** on an exchange
- Seeks to **track** an index of stocks, bonds, or other investment instruments
- Does **not** seek to provide a leveraged or inverse return

Investors need to understand what they own. BlackRock, along with others in the industry, has called for a clear-cut ETP naming convention to better serve investors.[6]

6. Do index rebalances make index investing less efficient?

Indices are periodically rebalanced as changes in market prices affect the relative weightings of individual securities in the index. Because index funds seek to track an index, they also adjust when index rebalances happen.

There are a **multitude of decisions** that must be made leading up to and during index rebalances. At BlackRock, professional index fund managers take a disciplined approach to managing rebalances as they seek to deliver fund performance outcomes that align with index performance.[7]

Some actively managed funds, like hedge funds, may use knowledge of the indexing process to seek to generate returns by capturing price movements in names added or removed from the index during rebalances, or by predicting index inclusions and deletions before these changes are announced. Even so, this has minimal impact on index funds.

All figures in USD unless otherwise noted.

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7. How does BlackRock measure investment performance for index ETFs?

Investment performance is how we deliver quality to our investors. It's not only how well our index book tracks an index, but also encompasses the market quality of our ETFs, or their ability to offer liquidity, price discovery, and efficient access to markets in all market conditions.

Market quality can be evaluated by looking at an ETF's **trading dynamics** (such as its average daily volume and bid-ask spread), **premium/discount behavior** (which can be indicative of primary market efficiency or the ETF's utility as a price discovery vehicle), and its **impact on underlying markets** (as measured by the ratio of its secondary market activity to its primary market activity and by the ratio of stock trading that results from the ETF's creation and redemption activity).

Tracking can be measured by the ETF's **tracking difference**—the difference between the ETF's return and that of its benchmark index—and **tracking volatility**, which measures the standard deviation (i.e., the volatility) of tracking difference month-over-month.

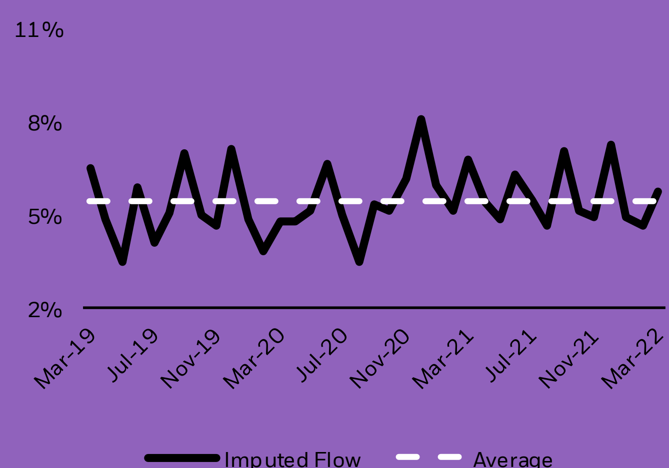
8. How do ETFs impact stock prices?

Questions sometimes arise about whether ETFs influence the prices of the stocks they hold. In short, the majority of ETF activity doesn't affect the market prices of underlying stocks.

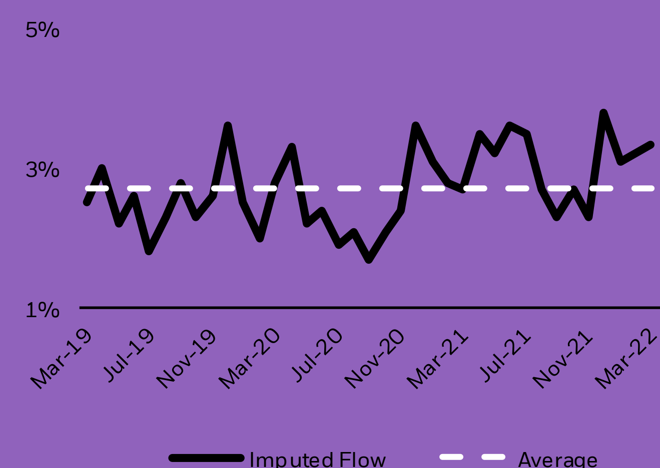
From the period March 2019 through March 2022, approximately 5% of trading volume in U.S. equities has been attributable to ETF activity, while in Europe, just 2.7% of trading in individual European stocks has been attributable to ETF flows.[8]

This is because roughly 80% of U.S. ETF activity takes place on-exchange between buyers and sellers of ETF shares, which means that, most of the time, shares of underlying stocks do not need to be bought or sold to adjust for changes in investor demand.[9]

Percentage of stock trading as a result of ETF flows (US)



Percentage of stock trading as a result of ETF flows (Europe)



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9. What would happen if an authorized participant or market maker withdrew from the ETF market?

An authorized participant (AP) is a financial institution that manages the creation and redemption of ETF shares in the primary market. Each AP has an agreement with an ETF sponsor that gives it the right (but not the obligation) to create and redeem ETF shares. APs may act on their own, or on behalf of market participants.

Market makers are broker-dealers that regularly provide two-sided (buy and sell) quotes to clients. In some instances, an ETF's market makers may also be APs.

APs and market makers operate in a highly competitive environment, and are **economically incentivized** to take part in making or trading ETF shares. Historically, if an AP has withdrawn from the ETF market, other APs have stepped in to facilitate the creation and redemption of ETF shares, particularly if there was a significant premium or discount to its net asset value (NAV), or difference between the price of the ETF and its underlying holdings. This is because APs generally seek to take advantage of economic **arbitrage opportunities** arising from that difference (for example, if an ETF is trading at a price above its NAV, an AP could buy the underlying securities and exchange them with the ETF issuer for newly created ETF shares, which may then be sold in the market for a profit).

That same incentive holds true for market makers as well.

Ultimately it is this "arbitrage mechanism" that helps keep the ETF's market price close to the value of its underlying holdings each day.

10. What role do ETFs play in price discovery?

Price discovery helps investors identify the proper market price of securities or other instruments based on factors like supply and demand. The on exchange trading of ETFs plays an important role in price discovery across markets, sectors and individual stocks. For example, international ETFs traded during U.S. market hours help investors set prices daily when non-U.S. markets are closed. Additionally, during suspensions of international stocks or markets, U.S.-domiciled ETFs may be the **primary source** of pricing information available to market participants.

ETF flows provide crucial information. As greater numbers of investors use ETFs to express their views, flows from one asset to another can serve as indicators of investor sentiment about potential risk and return.

Note that ETFs don't set prices or drive volatility. They hold up a mirror to what investors are thinking.

Endnotes

1 Source: International Organization of Securities Commission "Exchange Traded Funds Thematic Note – Findings and Observations during COVID-19 induced market stresses" (August 2021).

2 Source: World Federation of Exchanges, Bank for International Settlements (BIS) (as of 31 December 2020).

3 Source: Simfund/Broadridge, McKinsey, Markit (as of 31 December 2020).

4 Source: Simfund/Broadridge, McKinsey, Markit, World Federation of Exchanges (as of 31 December 2020).

5 Source: Bank for International Settlements, Simfund/Broadridge, McKinsey, Markit (as of 31 December 2020).

6 For more information on ETP classifications, see letter to the exchanges regarding ETP classification.

7 For more information on equity index rebalances, see iShares Investigates: Market indexes and index investing | Part 2: Equity index rebalances.

8 Source: Bloomberg, Markit, BlackRock. As of 31 March 2022. Derived from the collective weight of flows into all ETFs holding all U.S. stocks on a monthly basis from 2019 through 2022.

9 Source: BlackRock, Form N-CEN. As of 31 March 2021.

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ETFs and mutual funds: Know the differences

- **Strategy:** Fund management styles are typically categorised as "active" or "index". Active funds (most mutual funds) seek to outperform market indices, while "index" funds (some mutual funds and most ETFs) seek to match the fund's performance to an established market index, such as the S&P 500.
- **Trading:** Mutual funds are bought and sold directly from the mutual fund company at the current day's closing price, or the Net Asset Value (NAV). ETFs are traded throughout the day at the current market price, like a stock, and may cost slightly more or less than NAV. Mutual fund transactions do not include commissions to a brokerage, while some ETF transactions do.
- **Transaction fees:** For mutual funds, transaction fees may include sales charges (sales loads) or redemption fees. These are paid directly by investors. ETF transactions may include brokerage commissions (like stocks), which are paid directly by investors.
- **Tax implications:** Mutual fund shareholders redeem shares directly from the fund, so the fund manager must often sell fund securities to honour redemptions, potentially triggering capital gains for the fund's remaining shareholders. Because ETF investors buy and sell shares with other investors on an exchange, the ETF manager doesn't have to sell holdings – potentially creating capital gains – to meet investor redemptions. ETF shareholders can incur tax consequences when they sell shares on the exchange, but that tax consequence is not passed on to other ETF shareholders.
- **Transparency:** ETFs generally disclose holdings daily. Mutual funds generally disclose holdings quarterly.

	Mutual Funds	Index Mutual Funds	ETFs	Stocks/Bonds
Diversified	✓	✓	✓	
Traded on exchange			✓	✓
Intraday pricing			✓	✓
Intraday trading			✓	✓
Management fees	✓	✓	✓	
Commission fees			✓	✓
Tax management*			✓	✓

* Due to fund structure, mutual fund holders may be subject to taxable capital gains distributions due to other investors' redemptions directly to the mutual fund. Taxable capital gain distributions can occur to ETF investors based on stocks trading within the fund as the ETF creates and redeems shares and rebalances its holdings. ETFs and stocks will also distribute taxable capital gains when an investor sells their own shares. Certain traditional mutual funds can also be tax efficient.

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