The rapid growth of exchange trade funds (ETFs) is supported by a robust, dynamic “ecosystem” made up of many players. Among the key contributors to smooth ETF operations are authorized participants (APs). These financial institutions work with ETF issuers to create and redeem shares in the primary market.

To learn more about the role of authorized participants, see Part 1.

This paper looks deeper into the U.S. ETF ecosystem to analyze the breadth and scope of the AP universe. It draws on data disclosed by fund companies annually, as required by the Securities and Exchange Commission (SEC).¹

A broad, diverse universe

Most ETFs are supported by numerous APs. On average, U.S.-domiciled ETFs have 27 “contracted” APs and five “active” APs (Figure 1).

A contracted AP has an effective agreement in place with an ETF issuer, even if the AP does not regularly create or redeem ETF shares. An active AP has created or redeemed shares of an ETF within the fund’s most recent fiscal year.²

Not all APs are active at the same time.

For example, some institutions may complete formal paperwork to become an AP so they can participate when they see opportunities to profit. This presence of contracted APs helps ensure vibrant competition exists to provide ETF creation and redemption services. If an active AP were to step away, another contracted AP could step in to execute creation and redemption activity—even if they hadn’t been active in the fund previously.

Figure 1: APs for U.S.-domiciled ETFs³

<table>
<thead>
<tr>
<th>Total Contracted APs</th>
<th>Total Active APs</th>
<th>Avg. Contracted APs per ETF</th>
<th>Avg. Active APs per ETF</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>37</td>
<td>27</td>
<td>5</td>
</tr>
</tbody>
</table>

¹ Form N-CEN was proposed by the SEC in October 2016, with a compliance date of June 1, 2018. For more information on Form N-CEN see https://www.sec.gov/rules/final/2016/33-10231.pdf ² As reported in Form N-CEN; see ‘Important Notes’ ³ Source: BlackRock, Form N-CEN. Retrieved from SEC EDGAR database https://www.sec.gov/edgar/searchedgar/webusers.htm. As of 03/27/2020.
Size matters

Because larger funds—those with more assets under management (AUM)—typically have higher trading volumes, they tend to be supported by a greater number of APs than funds with smaller AUM (Figure 2).

In fact, it is not uncommon for small funds to have limited or no primary market activity.

There were no creations or redemptions over the reporting period in nearly 7% of funds with $50 million or less in assets. 

Generally, increased trading volumes result in a higher number of active APs.

For example, funds that had an average daily volume (ADV) of $100 million or more had an average of 12 active APs over the reporting period, while funds with an ADV of $2 million or less had an average of three active APs.

Participation across asset classes

Some asset classes require specialized infrastructure and/or expertise, resulting in fewer APs that are equipped to support these funds.

Still, there’s a robust group of APs at the ready even in these more complex products.

Figure 2: Average contracted and active APs by ETF AUM

Figure 3: Average contracted and active APs by asset class

Figure 4: Average contracted and active APs for fixed income ETFs

---

4 Source: Bloomberg, BlackRock, Form N-CEN. As of 03/27/2020. 5 Source: Bloomberg, BlackRock, Form N-CEN. As of 03/27/2020. 6 Source: Bloomberg, BlackRock, Form N-CEN. As of 03/27/2020. 7 Source: Markit, BlackRock, Form N-CEN. As of 03/27/2020. 8 Source: Markit, BlackRock, Form N-CEN. As of 03/27/2020.
Engagement between ETF issuers and APs

Even small ETF issuers by AUM utilize the breadth of the ETF marketplace and engage with multiple APs (Figure 5). APs capitalize on the wide range of ETF offerings. The top APs have contracts for 1,500 to 1,900 ETFs each, and actively engage with anywhere between 180 and 1,600 ETFs (Figure 6).

Figure 5: Sample APs by ETF issuer

![Bar chart showing AUM for various ETF issuers and APs.](Image)

Figure 6: ETF ticker coverage for the top ten APs

![Bar chart showing ETF ticker coverage for the top ten APs.](Image)

9 Source: BlackRock, Form N-CEN. As of 03/27/2020. 10 Source: Bloomberg, BlackRock, Form N-CEN. As of 03/27/2020.
A diverse playing field

The breadth of the AP universe should assuage concerns that ETFs rely too heavily on a limited number of institutions. Indeed, total creation and redemption activity is spread across dozens of APs.

In total, 37 APs created and redeemed shares over the reporting period.

The AP with the highest percentage of activity, Bank of America Securities (BofA), accounted for less than one-quarter of all ETF creations and redemptions by dollar value (Figure 7).

The real activity is on-exchange

APs are key contributors to smooth ETF operations, but they are responsible for only a small percentage of ETF activity.

The ratio of secondary market activity to primary market activity is 5:1. This means that for every $5 of trading that takes place between investors on exchange, only $1 flows through into the primary market.\(^\text{12}\)

The bottom line

ETF creations and redemptions are spread over a large and diverse base of APs. ETF issuers of all sizes generally have agreements in place with a multitude of APs, and while every AP is not always active in all funds at the same time, additional APs stand ready to step in when opportunities arise.

Larger funds, by assets and by trading volume, may typically have more APs than smaller funds, but even small funds take advantage of the scope of the AP universe.

ETFs that invest in complex asset classes also leverage the existence of multiple APs.

Overall, this broad engagement by APs supports a healthy ETF ecosystem.

\(^{11}\) Source: BlackRock, Form N-CEN. As of 03/27/2020. \(^{12}\) Source: Bloomberg, BlackRock, Form N-CEN. As of 03/27/2020. \(^{13}\) Source: Bloomberg, BlackRock, Form N-CEN. As of 03/27/2020.
Important notes:

Data in this paper, unless otherwise noted, was compiled using Form N-CEN disclosures, publicly available at https://www.sec.gov/edgar.shtml. Additional information on Form N-CEN is available at https://www.sec.gov/files/formn-cen.pdf

Only funds subject to the Investment Company Act of 1940 are required to file Form N-CEN disclosures. As of March 27, 2020, ETFs representing 99% of eligible ETF AUM have filed Form N-CEN.

Funds captured in this analysis must have: a) filed a Form N-CEN prior to March 27, 2020 and b) still been active (i.e., had not been liquidated or delisted) as of March 27, 2020.

Form N-CEN filings may have different reporting periods based on the reporting fund’s fiscal year-end or legal structure.

Form N-CEN data in this paper covers forms with report ending periods from January 1, 2019 to December 31, 2019. All reporting ETFs were aggregated to the issuer’s parent company.

Authorized participant filing names were aggregated under the institution’s primary legal entity.

Gross notional value was calculated by summing the reported “Authorized Participant Purchase Value” and “Authorized Participant Redeem Value” fields of Form N-CEN.

Bloomberg fund strategy data was used for asset class categorization.
ETFs and mutual funds: Know the differences

- **Strategy:** Fund management styles are typically categorized 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 honor 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.

<table>
<thead>
<tr>
<th></th>
<th>Mutual Funds</th>
<th>Index Mutual Funds</th>
<th>ETFs</th>
<th>Stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversified</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Traded on exchange</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Intraday pricing</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Intraday trading</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Management fees</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Commission fees</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Tax management*</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Index-tracking</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

* 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.
Risks

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors may not get back the amount originally invested.

Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

Changes in the rates of exchange between currencies may cause the value of investments to diminish or increase. Fluctuation may be particularly marked in the case of a higher volatility fund and the value of an investment may fall suddenly and substantially. Levels and basis of taxation may change from time to time.

All figures are denominated in U.S. dollars, unless otherwise noted.

Important Information about iShares ETFs

For U.S. investors: Carefully consider the Funds’ investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the Funds’ prospectuses or, if available, the summary prospectuses which may be obtained by visiting www.iShares.com or www.blackrock.com. Read the prospectus carefully before investing.

Investing involves risk, including possible loss of principal.

This material is provided for educational purposes only and is not intended to constitute investment advice or an investment recommendation within the meaning of federal, state or local law. You are solely responsible for evaluating and acting upon the education and information contained in this material. The information and opinions are derived from proprietary and non-proprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy. BlackRock will not be liable for direct or incidental loss resulting from applying any of the information obtained from these materials or from any other source mentioned. BlackRock does not render any legal, tax or accounting advice and the education and information contained in this material should not be construed as such. Please consult with a qualified professional for these types of advice.

Shares of iShares ETFs may be bought and sold throughout the day on the exchange through any brokerage account. Shares are not individually redeemable from the ETF, however, shares may be redeemed directly from an ETF by Authorized Participants, in very large creation/redemption units.

Although market makers will generally take advantage of differences between the NAV and the trading price of iShares ETF shares through arbitrage opportunities, there is no guarantee that they will do so.

Buying and selling shares of ETFs may result in brokerage commissions. Diversification may not protect against market risk or loss of principal.

There can be no assurance that an active trading market for shares of an ETF will develop or be maintained.

Investment comparisons are for illustrative purposes only. To better understand the similarities and differences between investments, including investment objectives, risks, fees and expenses, it is important to read the products’ prospectuses.

This information should not be relied upon as research, investment advice, or a recommendation regarding any products, strategies, or any security in particular. This material is strictly for illustrative, educational, or informational purposes and is subject to change. This material does not constitute an offer or solicitation in any jurisdiction where or to any persons to whom it would be unauthorized or unlawful to do so.

Prepared by BlackRock Investments, LLC (together with its affiliates, “BlackRock”).
This material is intended for the following audiences in each respective country or region: In the U.S: public distribution. In Canada: public distribution. In the UK and EEA: Professional Clients (as defined by the Financial Conduct Authority or MiFID Rules) and Qualified Investors only and should not be relied upon by any other persons.

Issued by BlackRock Investment Management (UK) Limited, authorised and regulated by the Financial Conduct Authority. Registered office: 12 Throgmorton Avenue, London, EC2N 2DL. Tel: +44 (0)20 7743 3000. Registered in England and Wales No. 2020394. For your protection telephone calls are usually recorded. BlackRock is a trading name of BlackRock Investment Management (UK) Limited. Please refer to the Financial Conduct Authority website for a list of authorized activities conducted by BlackRock.

Until 31 December 2020, issued by BlackRock Advisors (UK) Limited, authorised and regulated by the Financial Conduct Authority. Registered office: 12 Throgmorton Avenue, London, EC2N 2DL. Tel: +44 (0)20 7743 3000. Registered in England and Wales No. 00796793. For your protection, telephone calls are usually recorded. Please refer to the Financial Conduct Authority website for a list of authorized activities conducted by BlackRock.

From 31 December 2020, in the event the United Kingdom and the European Union do not enter into an arrangement which permits United Kingdom firms to offer and provide financial services into the European Union, the issuer of this material is:

(iii) BlackRock Advisors (UK) Limited for all outside of the European Union; and

(iv) BlackRock (Netherlands) B.V. for in the European Union,

BlackRock (Netherlands) B.V. is authorized and regulated by the Netherlands Authority for the Financial Markets. Registered office Amstelplein1, 1096 HA, Amsterdam, Tel: 020 – 549 5200, Tel: 31 – 20 – 549 – 5200. Trade Register No. 17068311. For your protection telephone calls are usually recorded.

FOR QUALIFIED INVESTORS IN SWITZERLAND: This document is marketing material. This document shall be exclusively made available to, and directed at, qualified investors as defined in the Swiss Collective Investment Schemes Act of 23 June 2006, as amended (“CISA”).

In DIFC: The information contained in this document is intended strictly for Professional Clients as defined under the Dubai Financial Services Authority (“DFSA”) Conduct of Business (COB) Rules.

The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock.

The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

The information contained in this document may contain statements that are not purely historical in nature but are “forward-looking statements”. These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser.

In Singapore, public distribution. Issued by BlackRock (Singapore) Limited (Co. registration no. 200010143N). This advertisement or publication has not been reviewed by the Monetary Authority of Singapore. In Hong Kong, public distribution. Issued by BlackRock Asset Management North Asia Limited. This material not been reviewed by the Securities and Futures Commission of Hong Kong.