iShares
by BlackRock

iSHARES INVESTIGATES: THE ETF ECOSYSTEM

Part 2 | Authorized participants by the numbers

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

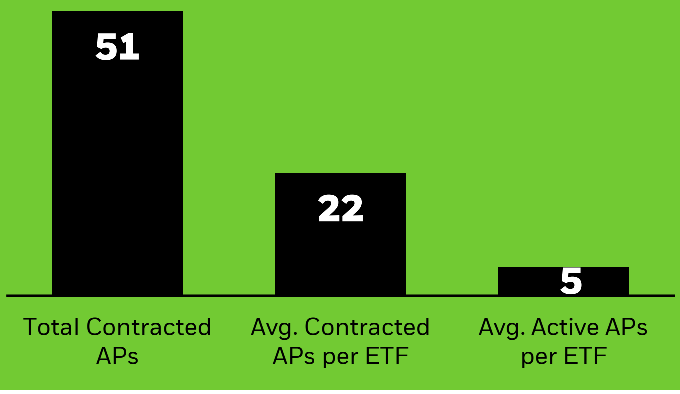
Most ETFs interact with numerous APs. On average, U.S.-domiciled ETFs have 22 "contracted" APs and five "active" APs **(Figure 1)**.

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: Average APs for U.S.-domiciled ETFs[3]



51 Contracted APs in the U.S.-listed ETF universe

35 Active APs in the U.S.-listed ETF universe

22 Average contracted APs per U.S.-listed ETF

5 Average active APs per U.S.-listed ETF

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 9/10/2019.

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 AUMs **(Figure 2)**.

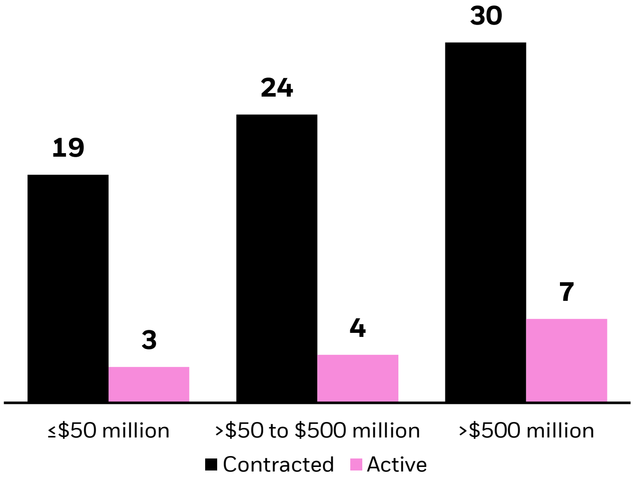
In fact, it is not uncommon for small funds to have limited or no primary market activity.

There were no creations or redemptions over the reporting period in 78% of funds with $50 million or less in assets.[4]

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 14 active APs over the reporting period, while funds with an ADV of $2 million or less had an average of three active APs.[5]

Figure 2: Average contracted and active APs by ETF AUM[6]



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 3: Average contracted and active APs by asset class[7]

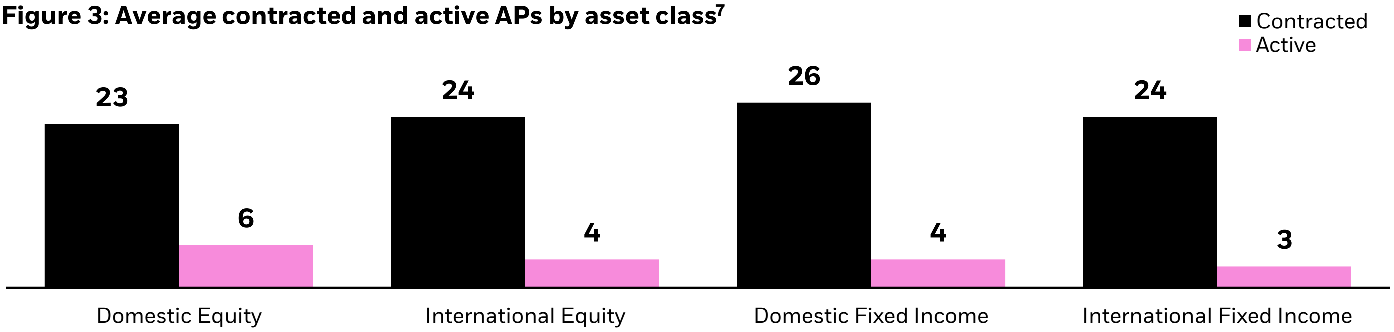
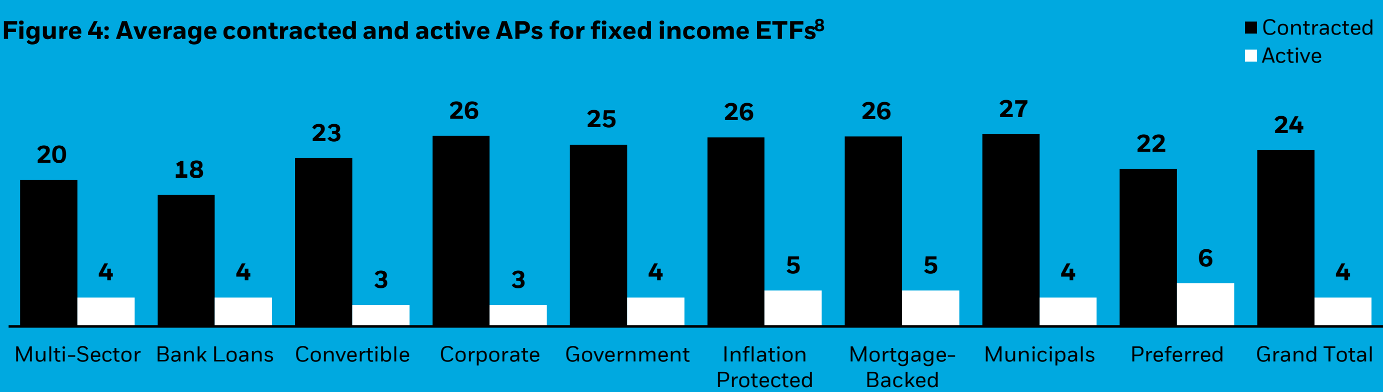


Figure 4: Average contracted and active APs for fixed income ETFs[8]



4 Source: Bloomberg, BlackRock, Form N-CEN. As of 9/10/2019. **5** Source: Bloomberg, BlackRock, Form N-CEN. As of 9/10/2019. **6** Source: Bloomberg, BlackRock, Form N-CEN. As of 9/10/2019. **7** Source: Markit, BlackRock, Form N-CEN. As of 9/10/2019. **8** Source: Markit, BlackRock, Form N-CEN. As of 9/10/2019.

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 1,000 to 1,800 ETFs each, and actively engage with anywhere between 150 and 850 ETFs **(Figure 6)**.

Figure 5: APs by ETF issuer[9]

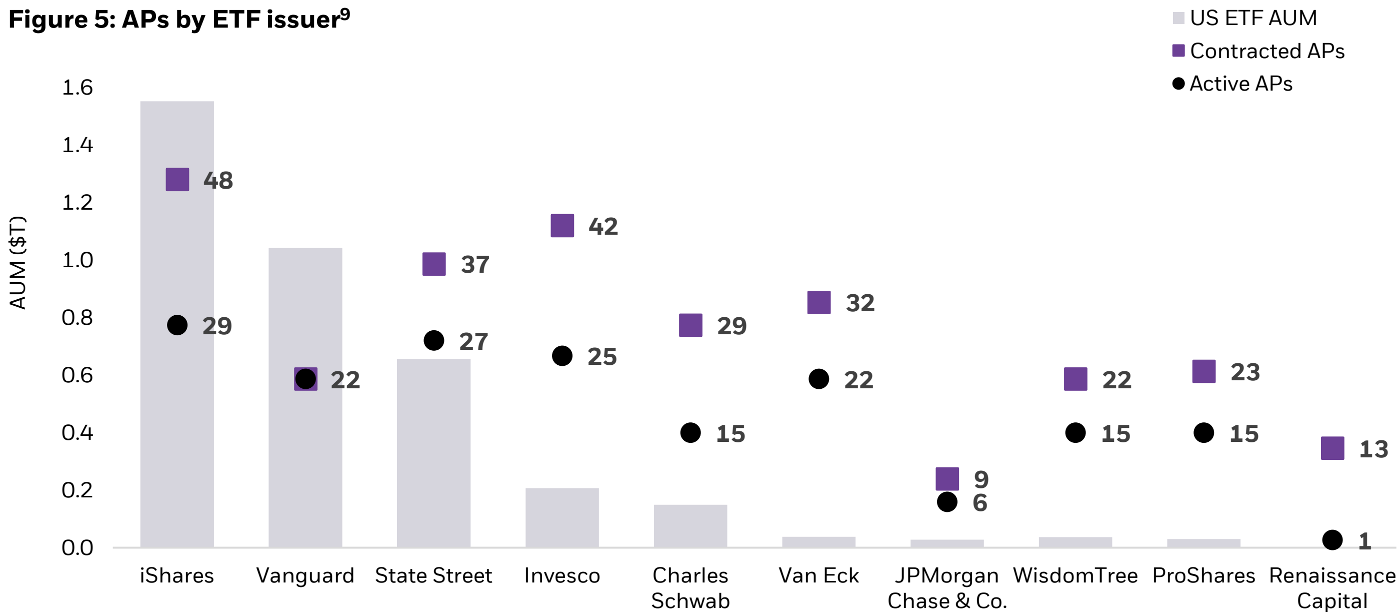
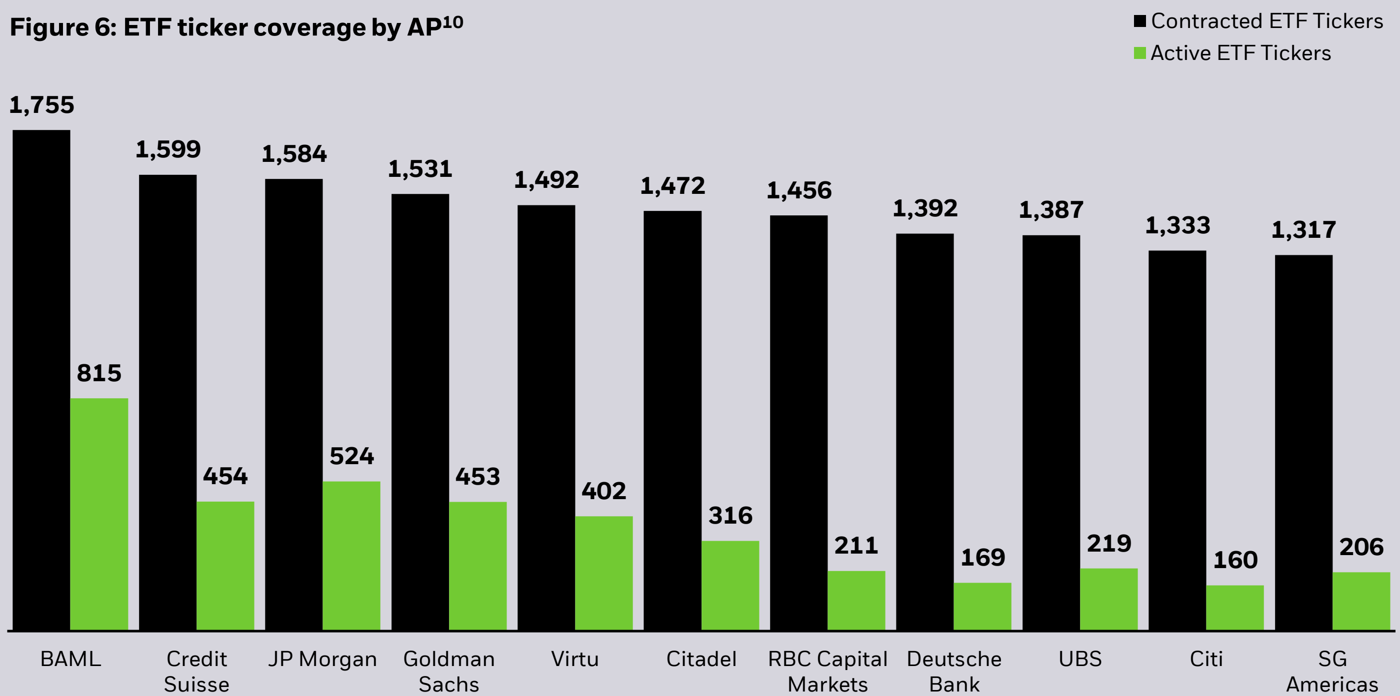


Figure 6: ETF ticker coverage by AP[10]



9 Source: BlackRock, Form N-CEN. As of 9/10/2019. **10** Source: Bloomberg, BlackRock, Form N-CEN. As of 9/10/2019.

iShares by BlackRock

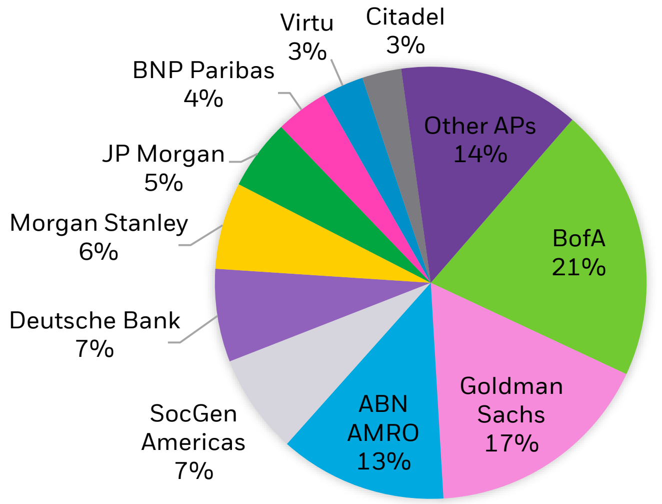
A diverse playing field

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, 35 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).**

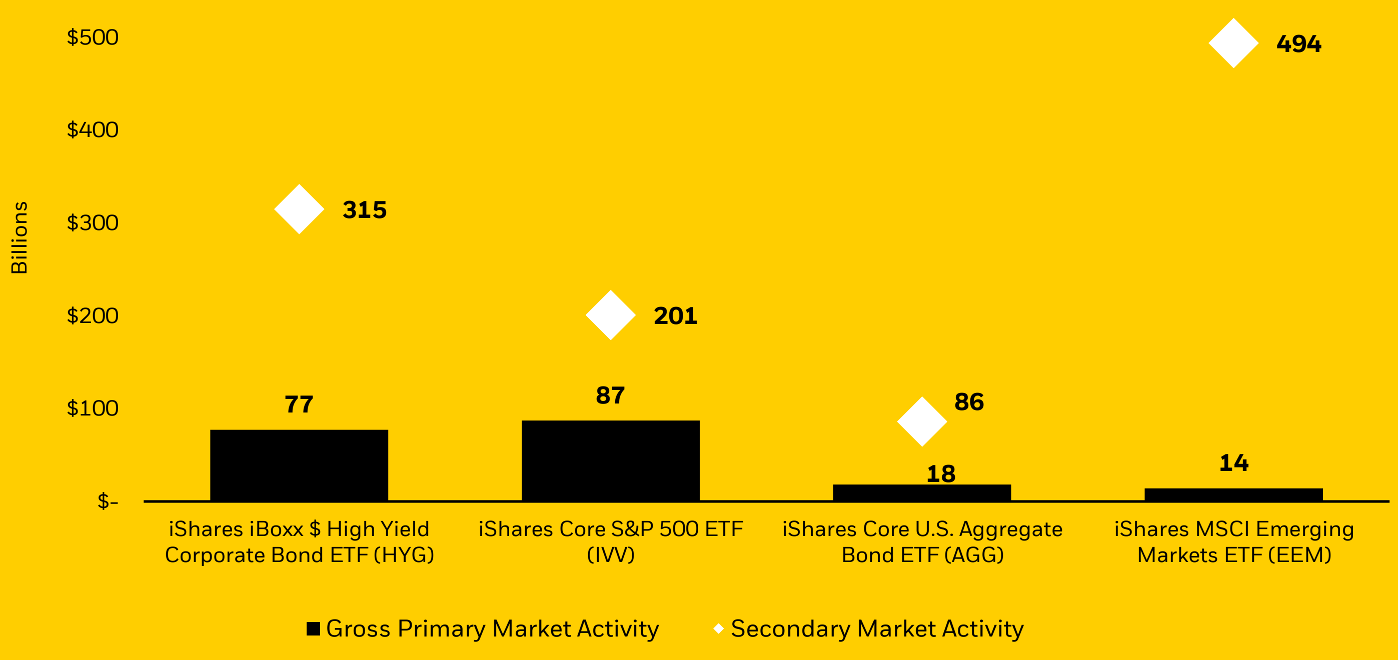
Figure 7: Gross creation and redemption activity by AP[11]



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. ETF creations and redemptions, or primary market activity, represent just 20% of ETF trading on average. This means that 80% of ETF trading—$8 out of every $10–takes place between investors on exchange.[12]

Figure 8: Primary and secondary market activity[13]



11 Source: BlackRock, Form N-CEN. As of 9/10/2019. **12** Source: Bloomberg, BlackRock, Form N-CEN. As of 9/10/2019. **13** Source: Bloomberg, BlackRock, Form N-CEN. As of 9/10/2019.

Conclusion

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

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 September 10, 2019, 83% of eligible ETFs have filed Form N-CEN. This accounts for 96% of ETF AUM.

Funds captured in this analysis must have: a) filed a Form N-CEN prior to September 10, 2019 and b) still been active (i.e., had not been liquidated or delisted) as of September 10, 2019.

Form N-CEN filings may have different reporting periods based on the reporting fund's fiscal year-end. Form N-CEN data in this paper covers forms filed between June 1, 2018 and September 10, 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.

Markit's sub-asset class breakdown was used for asset class categorization.

Issuers have discretion when reporting APs and can determine whether to include all contracted APs or simply those which have been active over the reporting period. This may be reflected in this analysis.

iShares® by BlackRock

Important Information about iShares ETFs

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. 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 will result in brokerage commissions.

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.

The iShares Funds are distributed by BlackRock Investments, LLC (together with its affiliates, "BlackRock").

The iShares Funds are not sponsored, endorsed, issued, sold or promoted by MSCI Inc., nor does this company make any representation regarding the advisability of investing in the Funds. BlackRock is not affiliated with MSCI Inc.

iShares® by BlackRock