

# Policy Spotlight: Authorized Participants

The size and scope of the exchange-traded fund (ETF) market has grown significantly over the past decade. Globally, ETF assets under management (AUM) accelerated from US\$1.4 trillion in 2010 to US\$6.8 trillion as of September 30, 2020.<sup>1</sup> Today, over 375 issuers offer more than 8,500 ETFs.<sup>2</sup>

Many players help support the arbitrage mechanism that enables ETFs to operate efficiently. In this Policy Spotlight, we examine the role of authorized participants (APs)—the financial institutions that work with ETF issuers to create and redeem ETF shares—to understand how these institutions support the ETF ecosystem in “normal” markets as well as in periods of increased volatility.

## ETFs trade in two markets

The structure of ETFs is unique because it combines features of mutual funds and stocks. Like mutual funds, ETFs are pooled investment vehicles that offer access to a broad mix of stocks, bonds or other assets. Unlike mutual funds, however, ETF investors don’t interact directly with the fund sponsor when buying or selling shares. Instead, they generally trade existing ETF shares with each other during market hours, on an exchange or over-the-counter (OTC)—just like trading stocks. The majority of ETF trading

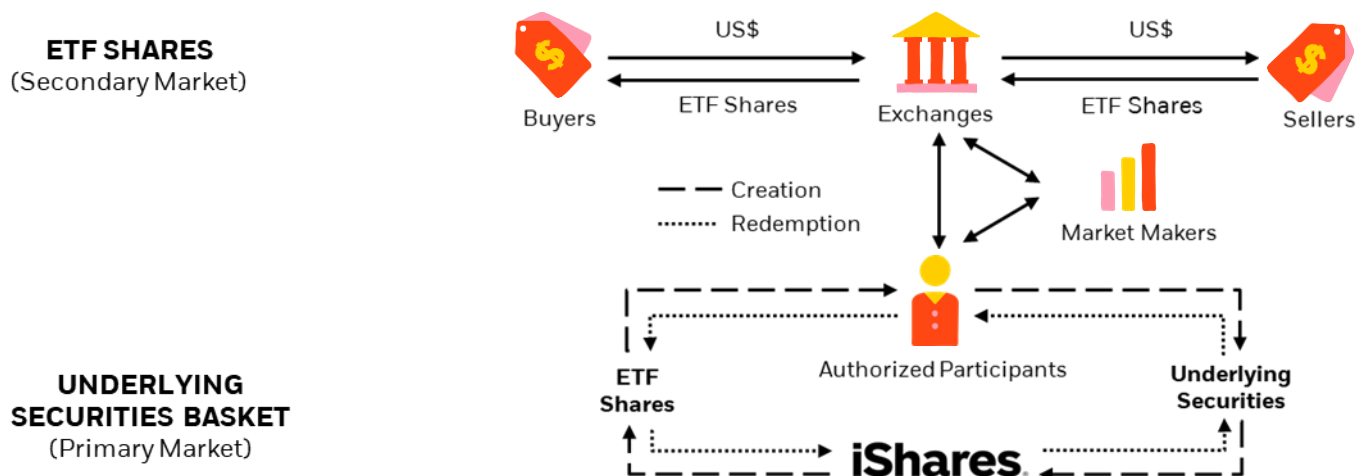
occurs in this “secondary” market. A separate, “primary” market involves APs transacting with ETF issuers to create or redeem ETF shares based on market demand. Individual investors do not directly participate in the primary market.

## The role of APs

An AP is a financial institution, often a bank, that may transact in the primary market with the ETF issuer to create or redeem shares of the ETF. The creation and redemption processes adjust the number of ETF shares outstanding and help keep an ETF’s price in the secondary market aligned with the value of its underlying securities. Each AP has an agreement with the ETF’s sponsor that gives it the right (but not the obligation) to create and redeem ETF shares. APs may act on their own behalf or on behalf of market participants and are not compensated by ETF sponsors.

When demand for ETF shares exceeds the supply of shares available in the secondary market, APs work with ETF issuers to create additional shares. This transaction generally occurs when an AP delivers a “creation basket” (a bundle of securities that the ETF issuer will accept in exchange for new shares of the ETF) along with a cash balancing amount, which together equal the net asset value

**Figure 1: An illustration of the ETF ecosystem**



For illustrative purposes only

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of the fund.<sup>3</sup> In return, the ETF issuer will deliver new shares of the ETF to the AP. The AP can then sell the ETF shares to investors in the secondary market.

When there are too many ETF shares outstanding (supply is exceeding demand), an AP may initiate a redemption and return ETF shares to the ETF issuer. To do this, the AP must deliver ETF shares—either obtained from inventory or purchased in the secondary market—to the ETF issuer and in return, the ETF issuer gives the AP a “redemption basket” (a pre-specified basket of the ETF’s underlying securities) along with a cash balancing amount, which together equal the net asset value of the fund.<sup>4</sup>

If the price of an ETF share deviates from the value of its underlying securities, an AP may have an economic incentive to create or redeem ETF shares. For example, if the price of an ETF is greater than the value the ETF’s basket of underlying securities (i.e., the ETF is trading a “premium”), an AP could profit by creating new ETF shares. Specifically, the AP could buy the underlying securities, deliver them to the ETF issuer to create new shares of the ETF, then sell the ETF shares for a profit. Likewise, if the market price of the ETF is less than the value of its underlying securities (i.e., the ETF is trading at a “discount”), an AP could buy shares of the ETF and redeem them with the issuer in exchange for the ETF’s underlying securities, which could then be sold in the market for a profit. This “arbitrage mechanism” helps keep the ETF’s price in line with the value of its underlying holdings.

## An analysis of the AP universe

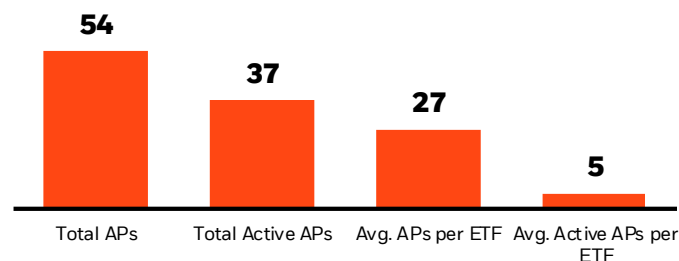
The U.S. Securities and Exchange Commission (SEC) requires funds registered under the Investment Company Act of 1940 to file Form N-CEN disclosures annually. The disclosures, which are filed on a fund by fund basis, include detailed information about the APs with which ETFs interact.<sup>5</sup> Using these publicly available disclosures, we have analyzed the robustness of the U.S. AP universe.<sup>6</sup>

What we find is that most ETFs are supported by numerous APs. On average, U.S.-domiciled ETFs have 27 APs, five of which are “active” APs (Figure 2). An AP has an effective agreement in place with an ETF issuer, even if the AP does not regularly create or redeem ETF shares, while an active AP has created or redeemed shares of an ETF within the fund’s most recent fiscal year.

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 there is an economic incentive to do so, such as with the arbitrage mechanism described earlier. The ability of multiple APs to create and redeem increases resiliency and helps ensure vibrant competition that helps closely align the market price of an ETF with the value of its underlying holdings. If an AP were to step away due to operational or other reasons, another

AP can step in to execute creation and redemption activity, even if they haven’t been active in the fund previously.

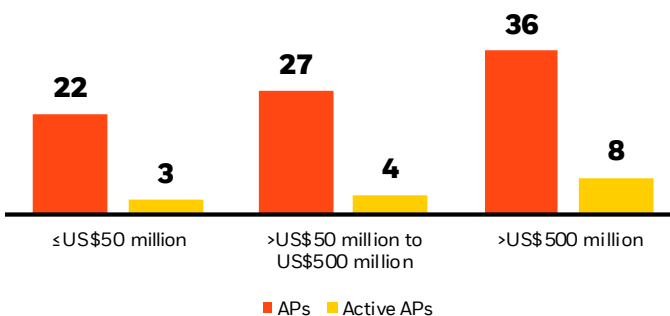
**Figure 2: APs for U.S.-domiciled ETFs**



Source: BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019.

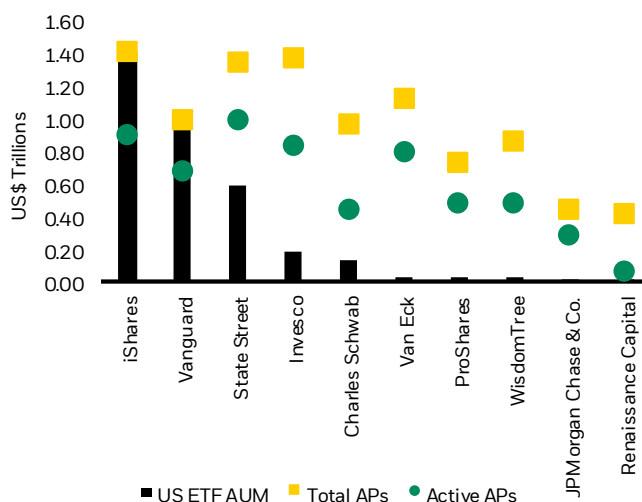
Funds with higher AUM typically have higher trading volumes<sup>7</sup> and tend to be supported by a greater number of APs than funds with lower AUM (Figure 3). However, even smaller ETF issuers engage with multiple APs (Figure 4).

**Figure 3: Average APs by ETF AUM**



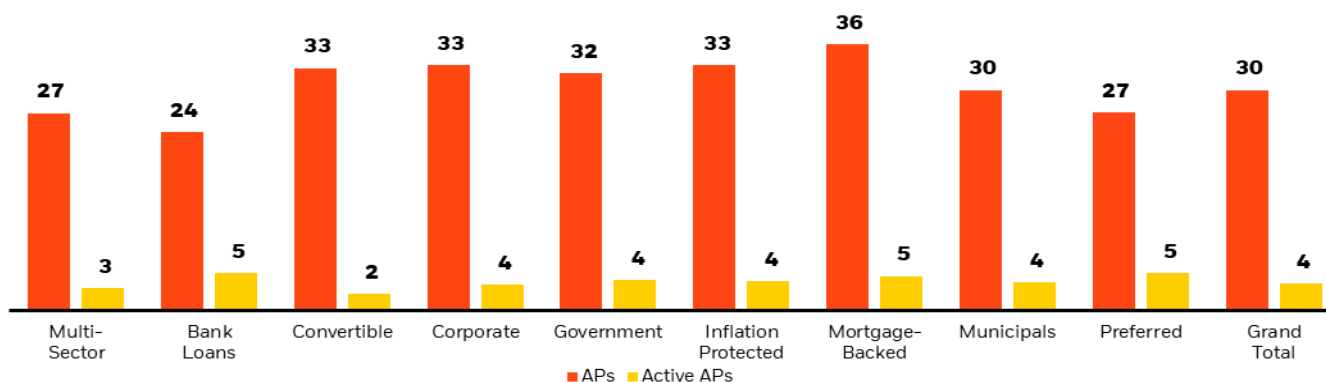
Source: Bloomberg, BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019.

**Figure 4: Number of APs by select ETF issuers**



Source: Bloomberg, BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019. This analysis is conducted on an annual basis. AUM as of March 27, 2020.

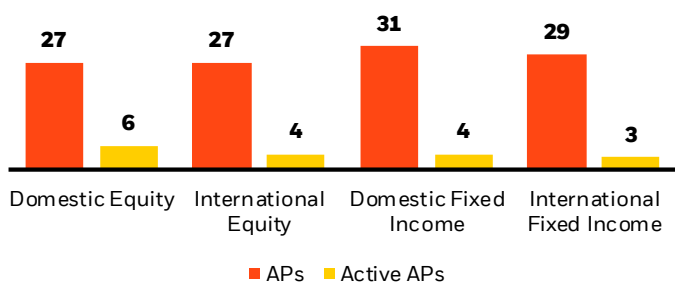
**Figure 5: Average APs for fixed income ETFs by sector**



Source: Markit, BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019.

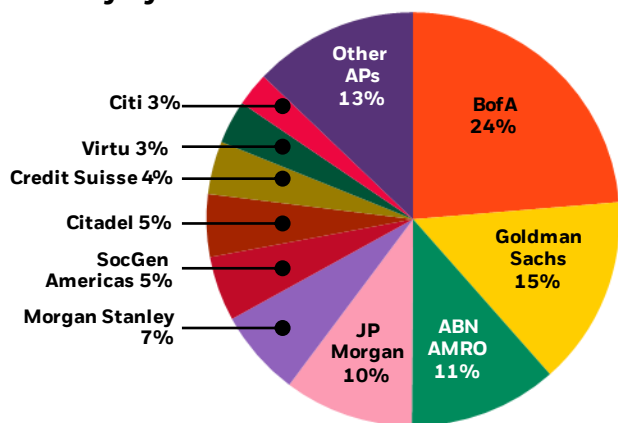
Some asset classes require specialized trading infrastructure and/or expertise, which can result in fewer APs that are equipped to support these funds. Even with more complex products, like municipal bond ETFs, there are multiple active APs (Figures 5 and 6).

**Figure 6: Average APs by asset class**



Source: Markit, BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019.

**Figure 7: Gross creation and redemption activity by AP**



Source: BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019.

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.<sup>8</sup> Importantly, the AP with the highest percentage of activity accounted for less than one-quarter of all ETF creations and redemptions by US dollar value (Figure 7).

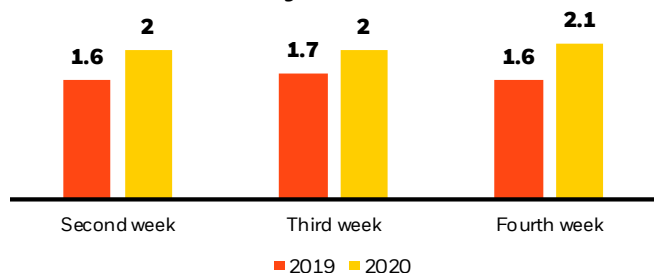
### AP participation in March 2020

The heightened volatility in March 2020 demonstrated the resiliency of the ETF model. AP participation in iShares ETFs was broad, with 22 and 24 different APs creating and redeeming shares in Europe and the US, respectively, during the month of March.<sup>9</sup>

This level of engagement from APs was not unique to iShares ETFs. According to a report from the Investment Company Institute (ICI), “[r]ather than stepping away in a crisis period as some have predicted, more APs, on average, stepped up to facilitate the higher level of primary market activity in the March 2020 stress period compared to the March 2019 normal period.”<sup>10</sup> ICI’s analysis, which was conducted using data from a member survey, illustrates how APs continued to participate in the ETF ecosystem despite the market uncertainty.<sup>11</sup>

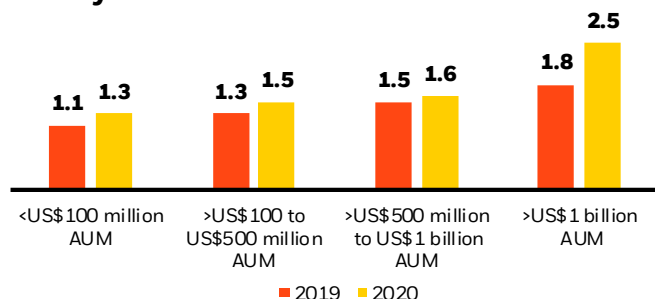
For example, the ICI found that an ETF had, on average, two APs per day that conducted creations and redemptions of ETF shares, somewhat higher than the daily average of 1.6 active APs per ETF in the March 2019 normal period (Figure 8). This step-up in activity was consistent across ETFs of all sizes and most asset classes (Figure 9 and Figure 10).

**Figure 8: Daily average number of active APs per ETF, March 11–March 29, 2019, and March 9–March 27, 2020 by week**



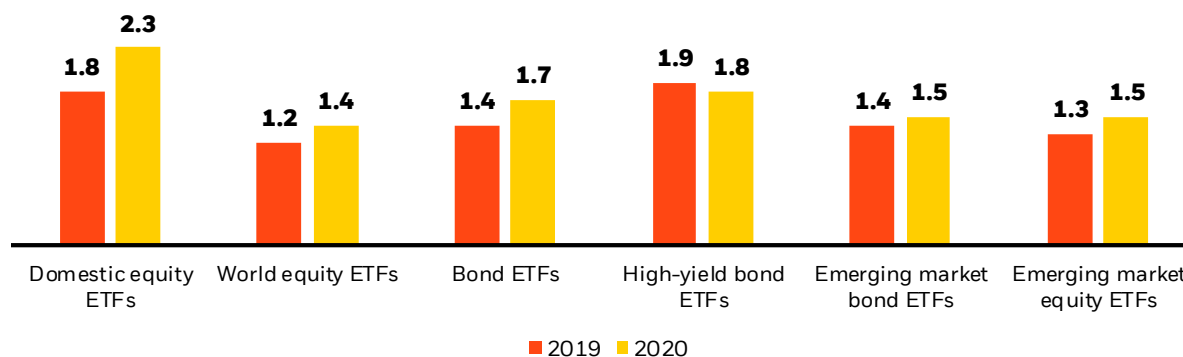
Source: Report of the Investment Company Institute’s COVID-19 market impact working group, “Experiences of US Exchange-Traded Funds During the COVID-19 Crisis,” available at: [https://www.ici.org/pdf/20\\_rpt\\_covid2.pdf](https://www.ici.org/pdf/20_rpt_covid2.pdf)

**Figure 9: Daily average number of active APs per ETF, March 11–29, 2019, and March 9–27, 2020 by ETF AUM**



Source: Report of the Investment Company Institute’s COVID-19 market impact working group, “Experiences of US Exchange-Traded Funds During the COVID-19 Crisis,” available at: [https://www.ici.org/pdf/20\\_rpt\\_covid2.pdf](https://www.ici.org/pdf/20_rpt_covid2.pdf)

**Figure 10. Daily average number of active APs per ETF, March 11–29, 2019, and March 9–27, 2020 by asset class**



Source: Report of the Investment Company Institute’s COVID-19 market impact working group, “Experiences of US Exchange-Traded Funds During the COVID-19 Crisis,” available at [https://www.ici.org/pdf/20\\_rpt\\_covid2.pdf](https://www.ici.org/pdf/20_rpt_covid2.pdf)

## Conclusion

The breadth of the AP universe, as well as the evidence on AP participation from the latest stress test of the ETF ecosystem in March 2020, should alleviate any concerns that ETFs rely too heavily on a limited number of institutions, or that APs step away during a crisis.

We commend the SEC for the measures they have taken to increase transparency into AP participation through Form N-CEN disclosure requirements. The clarity this information provides is instrumental in fully understanding the level of engagement between ETFs and APs. However, this data is exclusive to U.S.-listed ETFs. While BlackRock regularly shares data on AP activity with European regulators, we believe that consideration should be given to making this data available on a more systematic basis. We recommend the appropriate authorities implement a disclosure regime in Europe (which includes data comparable to that collected on SEC Form N-CEN in the U.S.) to make information on AP participation available on an annual basis. We believe that increased transparency into this part of the European ETF ecosystem would be beneficial to both regulators and investors.

# Endnotes

1. Source: BlackRock, Bloomberg, Markit. As of October 30, 2020.
2. Source: BlackRock, Bloomberg, Markit. As of October 30, 2020.
3. ETF issuers determine the contents of the creation basket prior to the start of each trading day, modifying throughout the day as needed. Securities delivered may be a full replication or representative sample of the underlying index, subject to acceptance by the ETF issuer. Cash is accepted in lieu of securities in certain funds or under limited circumstances.
4. Like a creation basket, the "redemption basket" is a pre-determined bundle of securities that represents the underlying index. ETF issuers determine the contents of the redemption basket prior to the start of each trading day, modifying throughout the day as needed. Securities delivered may be a full replication or a representative sample of the underlying index, as determined by the ETF issuer.
5. Additional information on Form N-CEN available at <https://www.sec.gov/files/formn-cen.pdf>
6. Form N-CEN filings are filed on a fund-by-fund basis within 75 days of a fund's fiscal year-end. Form N-CEN data in this paper captures forms with report ending periods from January 1, 2019 to December 31, 2019. Form N-CEN filings are available electronically through EDGAR <https://www.sec.gov/edgar.shtml>
7. BlackRock analysis of Bloomberg data.
8. Source: BlackRock analysis of Form N-CEN data with report ending periods from January 1, 2019 to December 31, 2019.
9. Source: BlackRock. As of March 31, 2020.
10. Source: Report of the Investment Company Institute's COVID-19 market impact working group, "Experiences of US Exchange-Traded Funds During the COVID-19 Crisis," available at [https://www.ici.org/pdf/20\\_rpt\\_covid2.pdf](https://www.ici.org/pdf/20_rpt_covid2.pdf)
11. "Twenty-three ETF sponsors responded with information on 1,205 ETFs registered under the Investment Company Act with a total of US\$3.4 trillion in assets as of March 2020. Survey respondents represented 58 percent of the total number of ETFs and 92 percent of assets at the end of March 2020." Source: Report of the Investment Company Institute's COVID-19 market impact working group, "Experiences of US Exchange-Traded Funds During the COVID-19 Crisis," available at [https://www.ici.org/pdf/20\\_rpt\\_covid2.pdf](https://www.ici.org/pdf/20_rpt_covid2.pdf)

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