iShares
by BlackRock

ETFS AND THE ONGOING CORONAVIRUS MARKET SHOCK

An analysis of trading volumes, real-time pricing and bid/ask spreads

Coronavirus worries injected sudden and severe market volatility into global financial markets and prompted the most jarring asset price swings since the great financial crisis.

Global equity benchmarks fell from record highs into a bear market in a matter of weeks. The Cboe Volatility Index, the stock market's "fear gauge," surged to its most anxious levels since 2008. Fixed income markets were struck by extreme moves in interest rates, especially as central bankers scrambled to soften the virus' economic impact.

Market turmoil of this magnitude has few precedents within the past century and, throughout the chaos, investors turned to exchange traded funds (ETFs) to allocate capital, adjust positions and manage risk.

Several metrics demonstrate not only that ETFs held up during the recent volatility but the extent to which investors relied on them to transfer risk in difficult conditions.

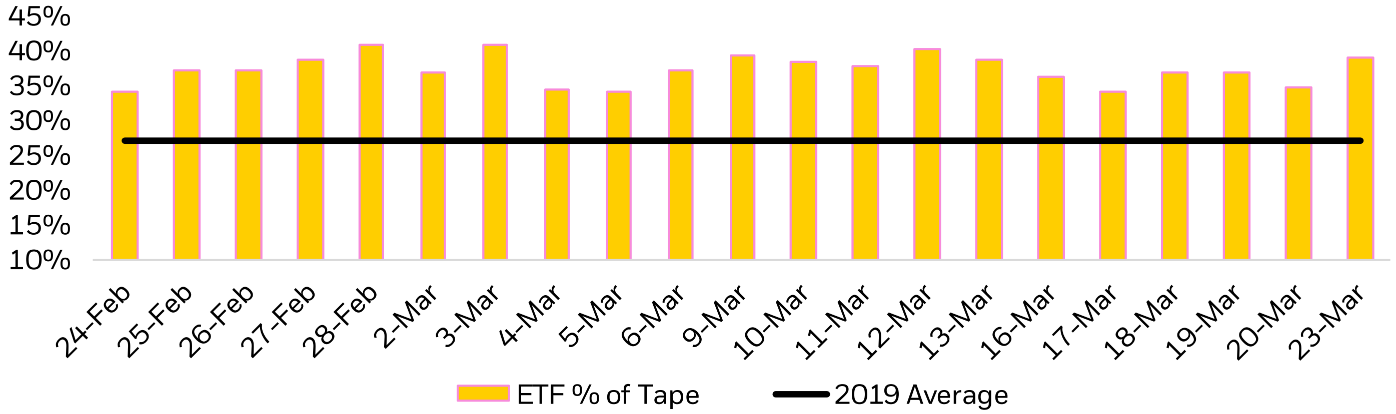
1. A surge in ETF trading volumes

For years investors have tended to trade ETFs more in times of uncertainty and the market activity of recent weeks underscores the utility of ETFs in times of market duress. In the U.S., ETF trading volumes surged to a record $1.4 trillion the week of March 9.[1] Similar records were set around the world.

From Feb. 24 through March 23, as market volatility accelerated, ETFs accounted for 37% of all U.S. trading activity on exchange compared with an 27% average for 2019.[2] In other words, nearly $40 for every $100 traded in the U.S. stock market was done through an ETF.

The steepest declines for risk assets resulted in the heaviest ETF activity as investors used them to rebalance portfolios and hedge positions. On March 12, as the S&P 500 fell nearly 10%, ETFs traded $340 billion—nearly four times the $88 billion average daily volume for 2019.[3]

U.S. ETF volumes as a percentage of aggregate U.S. trading on exchange (2/24/20-3/23/20)[4]



1 BlackRock; Bloomberg (data as of March 24, 2020) **2** BlackRock; Bloomberg (data as of March 24, 2020) **3** BlackRock; Bloomberg (data as of March 24, 2020) **4** BlackRock; Bloomberg (data as of March 24, 2020)

2. Bond ETF 'discounts' translate into real-time prices

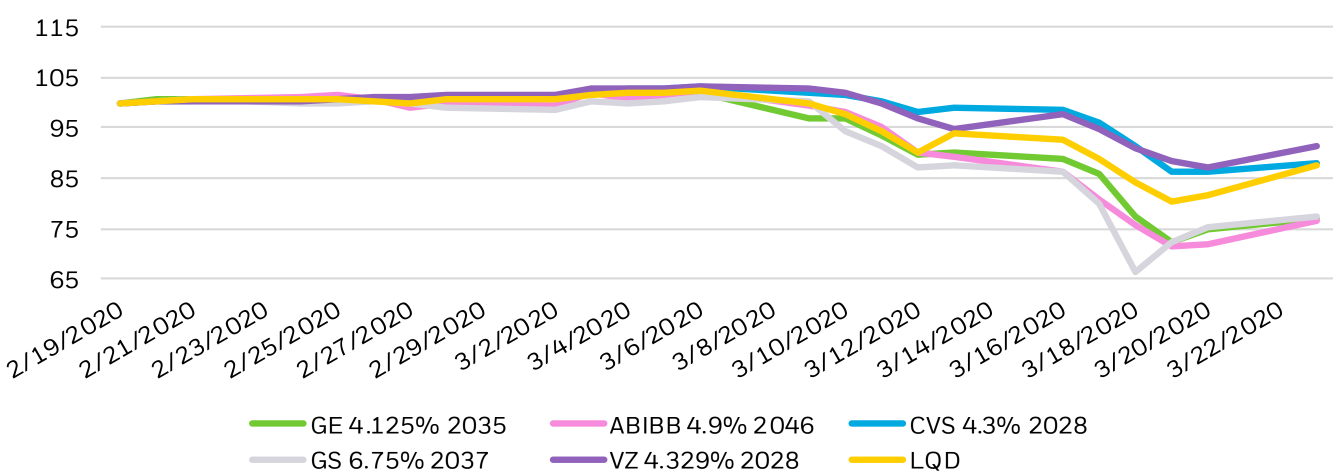
Disruptions in the fixed income markets the week of March 9 led to differences between bond ETF prices and the values of their constituent bonds. Such "discounts" to net asset values (NAVs) can occur because bond ETFs tend to trade more frequently than individual bonds, especially in times of stress.

It's important to note that recent discounts in bond ETFs don't reflect a problem with the ETF structure itself. Rather, investors should think about an ETF as a leading indicator of market prices since it transmits real-time information about the quality and accessibility of the underlying markets.

Consider the iShares iBoxx $ Investment Grade Corporate Bond ETF (LQD), the largest and most liquid U.S.-listed ETF of its type.[5] On March 11 and March 12, LQD closed at prices that were roughly 5% below its NAV. A look under the hood shows why: most LQD constituents traded infrequently and market sentiment was not fully embedded in individual bond prices. On March 12, for example, LQD changed hands almost 90,000 times on exchange, while its top five holdings traded an average of only 37 times apiece.[6]

Moreover, LQD's price moves during the recently volatile weeks were in line with some of its most active constituent bonds. This means that while LQD's price kept pace with the bonds that were changing hands frequently it effectively previewed the market-clearing prices of those slower to turn over. Indeed, LQD's price signaled the most relevant and timely information about where market participants valued corporate bonds in the heat of volatile trading.

LQD vs. top holdings (2/19/20–3/23/20)[7]



Name	Weight in LQD
GE Capital International Funding (GE)	0.35%
Anheuser-Busch Companies Llc (ABIBB)	0.31%
CVS Health Corp (CVS)	0.31%
Verizon Communications Inc (VZ)	0.22%
Goldman Sachs Group Inc. (GS)	0.21%

As of 3/23/20. Holdings subject to change. Information on non-iShares Fund securities is provided strictly for illustrative purposes and should not be deemed an offer to sell or a solicitation of an offer to buy shares of any security other than the iShares Funds, that are described in this material. TLT does not hold any of the companies mentioned above.

5 BlackRock, Bloomberg based on average daily trading volume and assets under management (data as of March 24, 2020)
6 BlackRock; Bloomberg (data as of March 24, 2020) **7** BlackRock; Bloomberg (data as of March 24, 2020)

3. Liquidity influences spreads

Bid/ask spreads for all securities tend to widen in times of market uncertainty as market makers seek to price in risk.[8] During the recent bout of volatility, spreads in ETFs widened in-line with the market.

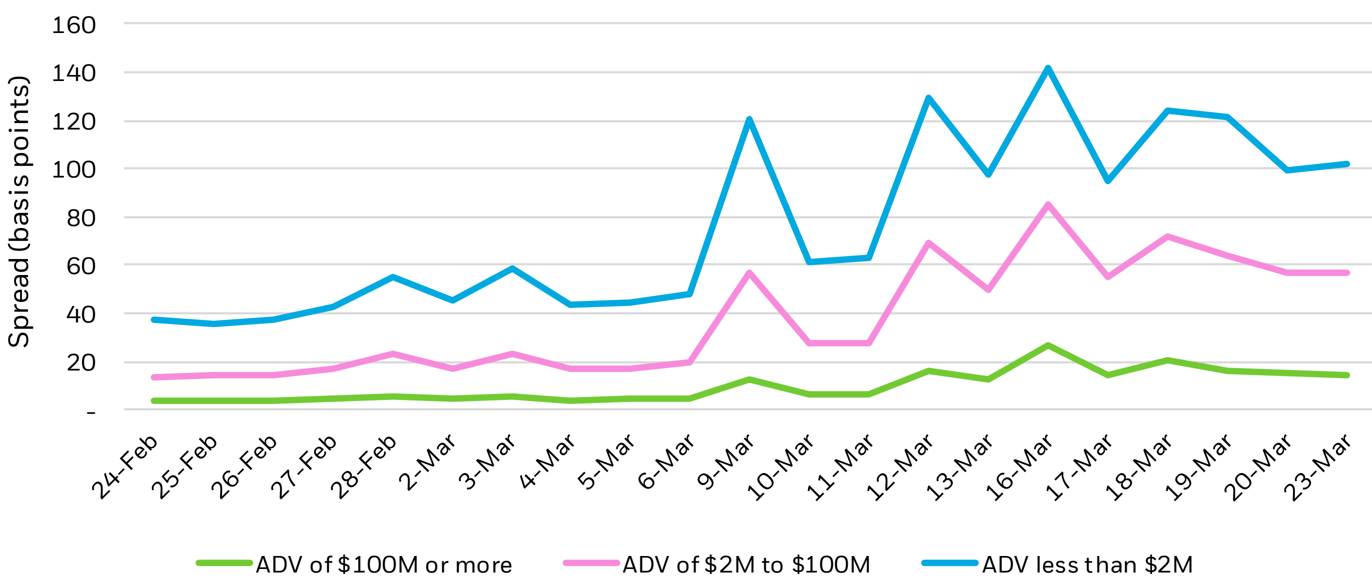
Across the industry, the most actively traded ETFs—those with average daily volumes of $100 million or more—had the tightest bid-ask spreads over the period of February 24-March 23.[9]

Consider that bid/ask spreads on the largest and most liquid iShares ETFs averaged 7.5 basis points (a basis point is one hundredth of one percent) over the past four weeks. This compares with 9.7 basis points for comparable ETFs over the same period.[10]

In many cases it has been more efficient to trade the ETF than underlying securities, even in generally liquid markets. Over the past four weeks the bid/ask spreads in the iShares 20+ Year Treasury Bond ETF (TLT), which tracks an index of long-dated U.S. government bonds, fluctuated from one to eight basis points.[11] By comparison, the spreads of "off-the-run" long-dated Treasury bonds—which are less frequently traded than the most-recent U.S. government issues and account for the bulk of the market—widened sharply, to as many as 91 basis points on March 20.[12]

This gap of more than 80 basis points was the largest ever recorded in the asset class, underscoring how much more efficient it can be to trade iShares ETFs versus a basket of constituent bonds in times of market duress.

Average spreads by ETF trading volume[13]



8 The bid is the highest current price at which dealers are willing to buy; the ask is the lowest current price at which dealers are willing to sell. The difference between the two, the "bid/ask spread," measures how much it costs to get in and out of each ETF share (wide spreads mean higher costs, narrow spreads mean lower costs). **9** BlackRock; NYSE (data as of March 24, 2020) **10** BlackRock; NYSE (data as of March 24, 2020) **11** BlackRock; NYSE (data as of March 24, 2020) **12** BlackRock; Bloomberg (data as of March 24, 2020) **13** BlackRock; NYSE (data as of March 24, 2020)

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