

ETF Market Liquidity Update: How to Trade in the COVID-19 Era

SPDR Capital Markets Group and SPDR EMEA Strategy & Research

In light of the recent extreme volatility, we have prepared a brief guide for investors on how to trade in the current market environment.

Equity, Treasury Volatility and Credit Spreads Ballooning

Current market conditions are highly volatile and have given rise to price dislocation in certain markets.

Below is a short summary of recent market activity for equity and credit ETFs in particular.

Equities

- ETF products have continued to function, albeit with wider spreads.
- Liquidity in cash and futures has dried up, which has a knock-on effect for the ETF market.
- Fair values may be less precise or they may reference futures that are closed (limit up/down), which in turn causes bid/offer spreads to widen significantly. Underlying companies are moving AGMs, which changes dividend points and major futures are rolling on Friday 20 March 2020. Consequently, visibility of futures' fair value is reduced, which causes bid/offer spreads to widen in ETFs.
- Primary markets have continued to operate as expected amid record volumes of activity across markets.

Credit

- In credit, investors are raising cash.
- There is a limited amount of balance sheet that brokers can deploy, which may reduce liquidity at times.
- Major credit ETFs have been trading at wider than usual discounts to NAV. This is to be expected in such a distressed environment. The ETF price represents where risk is actually clearing. The NAV represents the underlying bond basket; the levels within may be slower to respond.

Discount/premium to NAV

In the current environment, we have seen strong moves as investors quickly reallocate exposures using ETFs as a source of risk transfer.

- Within fixed income, the pricing mechanism of the underlying bonds has been driven by fears of a liquidity freeze. This has challenged markets.
- US Treasury (and other government bond markets) volatility has had unprecedented intraday moves but the Treasury is the basis for pricing other USD-denominated bonds.
- Credit spreads have widened very quickly (in some cases by more than 100bps in investment grade and 400bps in high yield) and are trading on both headline news and increased fears of defaults.
- NAV uses end of day prices and, in fast-moving markets, some bonds may exhibit stale prices in indices. As a result, meaningful discounts or premiums can arise and gyrate quickly.

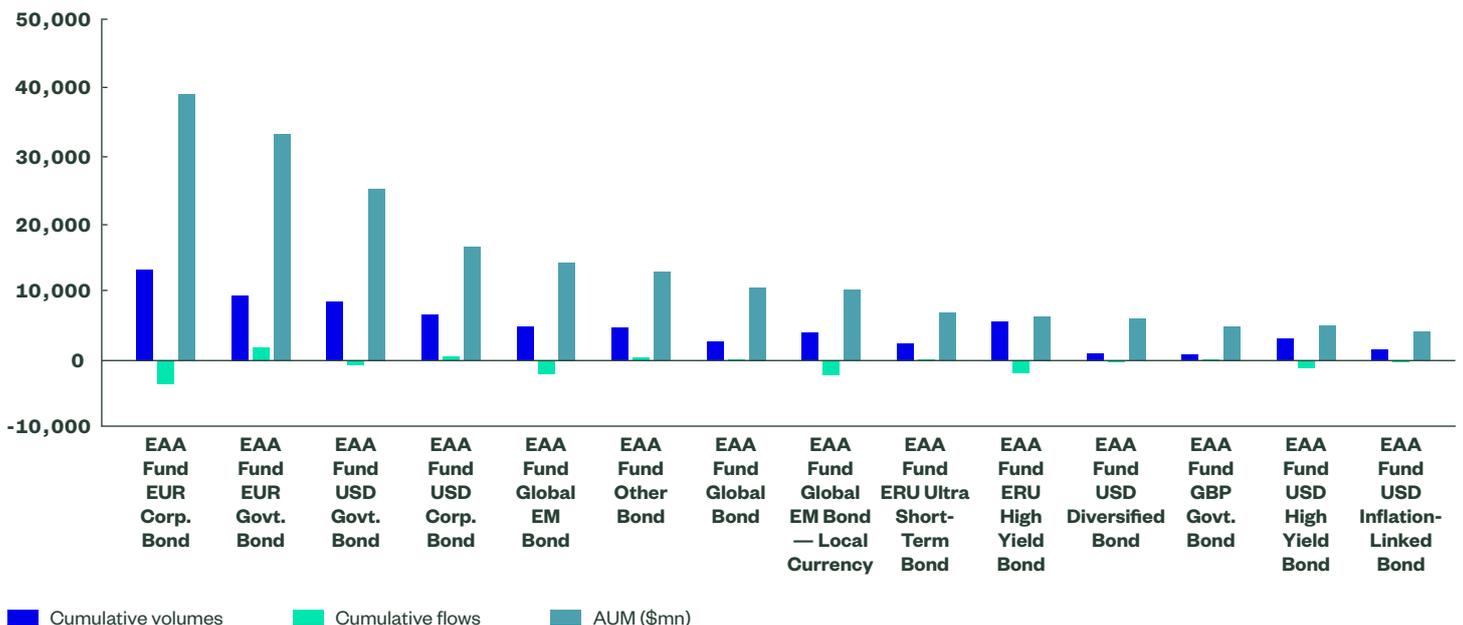
It is worth noting that the price discount to NAV represents the point at which a trade can be done via the ETF. It can give an indication of the cost liquidity at that time. Given recent volatility, investors should be aware of the challenges when executing orders, such as sourcing liquidity at fair prices in rapidly changing markets. We encourage investors to engage our capital markets teams in such markets.

Volumes Show There is more Activity Happening at the Secondary Market Level

Cumulative volumes across major exposures in the fixed income, EMEA-domiciled ETF universe show the usage of the instrument for liquidity and risk transfer. Between 1 and 18 March 2020, in the euro corporate bond space, for example, there was close to \$13.6 billion of volumes exchanged in ETFs when “only” \$3.4 billion of these exchanges led to net outflows. In other words, almost \$1 dollar for every \$4 exchanged. This example shows how the ETF, as an instrument, may prove useful when liquidity is more challenging in the underlying.

Euro government bonds have not escaped the recent volatility and challenging liquidity. We can also see a similar phenomenon of higher volumes versus actual trading, with \$9.7 billion of trades and \$1.9 billion of inflows.¹

Figure 1
EMEA-Listed ETF Volumes and Flows (in \$mn)

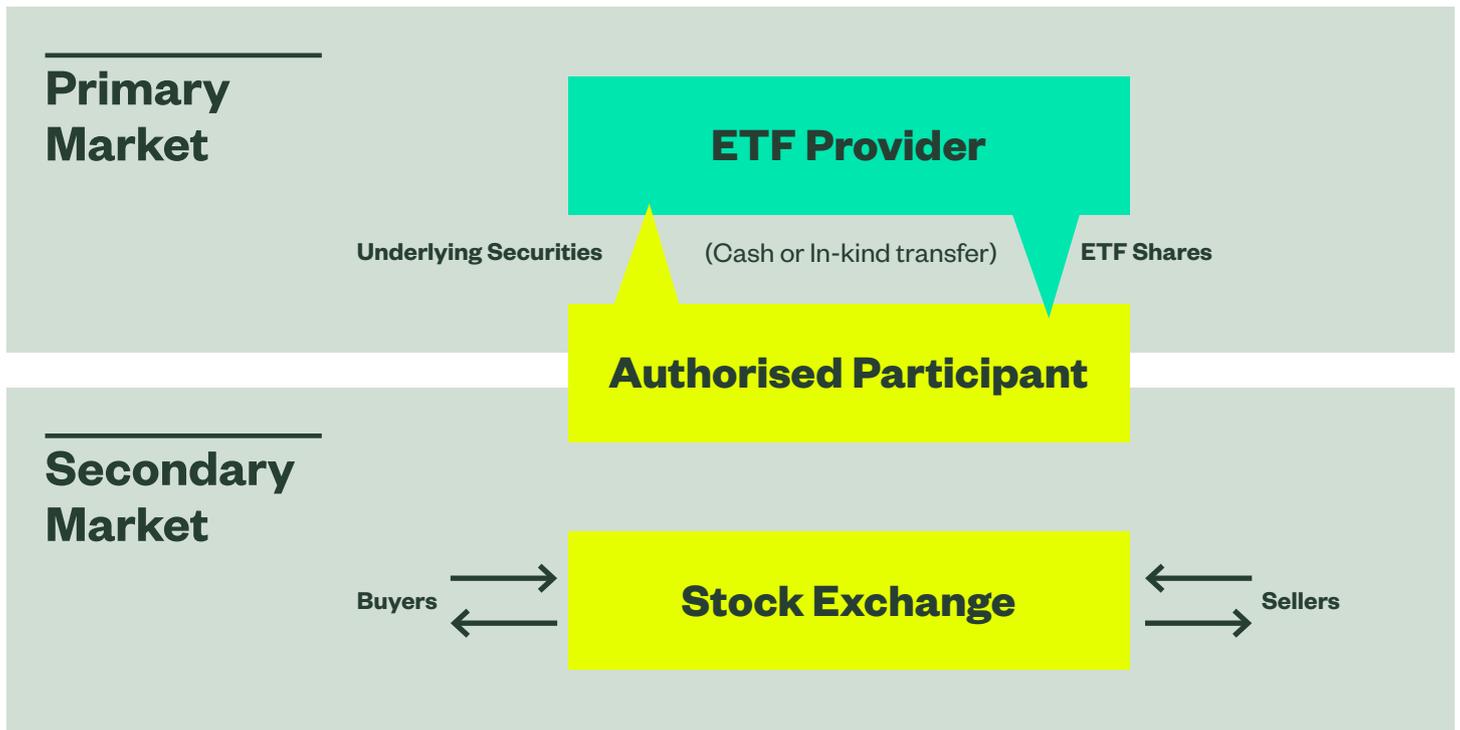


Source: Bloomberg Finance L.P., as of 19 March 2020. Universe classification: Morningstar Direct.

ETF Mechanism — Trading

Trading is done on exchange and OTC via authorised participants (APs) and financial intermediaries. ETF issuers like SPDR interact with APs when demand and supply dynamics lead to the need for creating or redeeming shares. This in turn leads portfolio managers actions to manage these flows by buying or selling underlying instruments, or preparing baskets of securities to be received into or taken out of the fund, in line with the index risk characteristics.

Figure 2
**How ETF Shares
are Created
and Redeemed**



Source: The above diagram is for illustrative purposes only.

How to Determine Fair Value

Spread

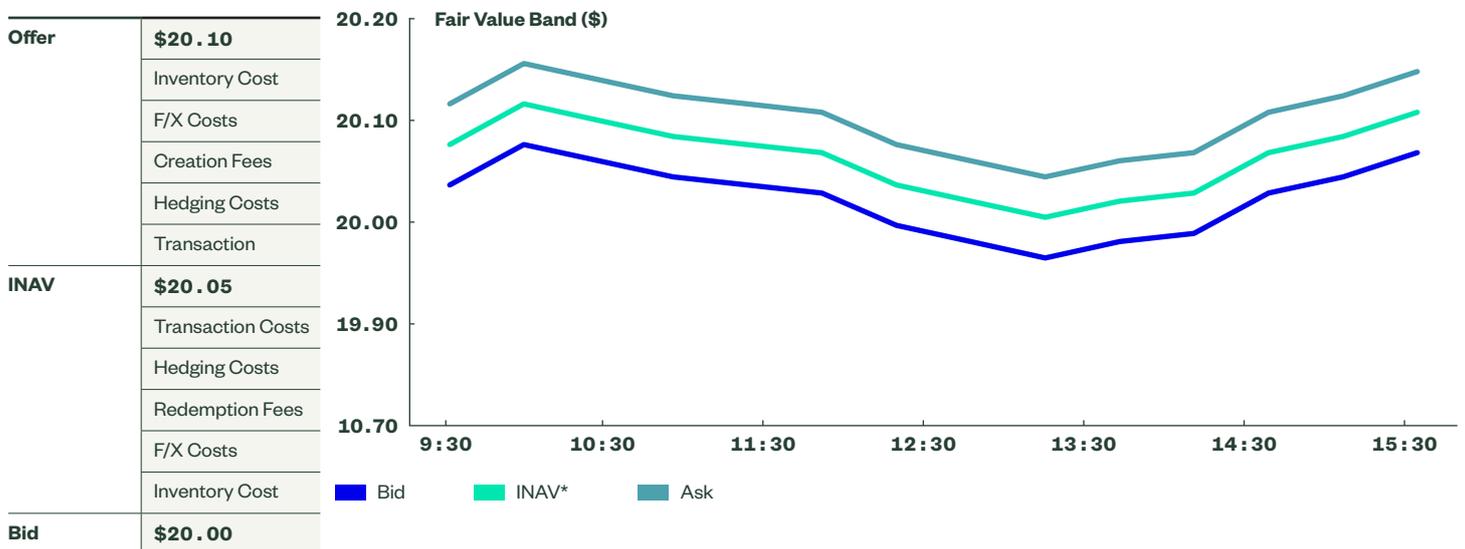
- Intra-day prices will move in a band between bid and offer .
- The more activity there is on screen in shares of an ETF, the tighter the spreads tend to be.
- The more liquid the underlying, the more liquid or diverse the hedging tools and the tighter the spreads tend to be.

NAV Discount/premium

- EOD NAV vs. current price will show the current intra-day price and potential cost of liquidity.
- If there is high demand to buy the exposure, the ETF may trade at premium and, inversely, if there is selling pressure the ETF may trade at a discount.

Figure 3

Fair Value Band



Source: New York Stock Exchange. The above chart is for illustrative purposes only.

*iNAV's are calculated and distributed every 15 seconds by market data vendors.

Guidance for Trading in Stressed Market Conditions

- Reduce the number in competition for RFQ. Some brokers see more downside than upside quoting versus a larger number of brokers in current market conditions.
- Make sure the underlying hedge is open.
- Make sure the underlying market is open, e.g. only trade US equities during US market hours.
- Pricing large, less liquid trades on risk is more challenging, so be prepared to execute over a longer time period where possible.
- Explore limit orders.

General Approach to ETF Trading

Regardless of market conditions, there are a range of questions for investors to consider before trading ETFs. The SPDR Capital Markets Group is always ready to help investors as they weigh these considerations.

Execution Priorities

- What is the timeframe for execution?
- Is the creation/redemption window open?
- Based on trade objectives, which is the correct type of order to use?

Trade Consideration

- Is the trade of a market standard size, or is it outsized in comparison with the ETF's historical average volumes?
- What is the trade size relative to the underlying market?
- Are the underlying constituents open to trade due to local market hours or holidays?

Market Environment

- Is the market trading in an orderly fashion (i.e. volatility halts)?
- Is the ADV drastically higher/lower than normal?
- Is the ETF's bid/ask wider than usual?
- Is there currently an outsized premium/discount?

Match Execution Strategies with Portfolio Objectives

ETF secondary trading volume is often the first measure of ETF liquidity. However, investors with larger order sizes can source liquidity not displayed on the screen from liquidity providers. ETFs are at least as liquid as their underlying constituents at any given point in time. With ETFs representing a multitude of asset classes, geographies, sectors and styles, the SPDR team is available to help investors navigate different market environments and volatility regimes and to properly evaluate execution strategies to meet portfolio objectives.

Figure 4

| Execution Strategy | Description | High Urgency | Market impact sensitivity | Time Risk | Anonymity |
|--------------------|---|--------------|---------------------------|-----------|-----------|
| Risk trade | Client receives price for the entire trade at once, and the liquidity provider takes on the risk of managing the resulting position. Liquidity providers can be put in competition for the trade, allowing for a clear measure of best execution. Client generally benchmarks vs. the quoted NBBO. | X | | | |
| NAV trade | Trade executed by buying or selling the underlying basket of securities and subsequently creating/redeeming ETF shares. The client typically receives a price reflective of executions for the underlying basket of securities plus or minus creation/redemption costs. Client generally benchmarks vs. end of day NAV. | | X | X | |
| Worked order | Electronic order types using automated, preprogrammed trading instructions. Orders can be measured relative to execution benchmarks based on volume, time or other metrics. Can be applied to both trading in the secondary market or trading the basket. | | X | X | X |

Endnote

- 1 Source: Bloomberg Finance L.P., as of 19 March 2020. Universe based on Morningstar classification.

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- Build from breadth
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