Liquid Enough:
Exploring ETF Liquidity Across Asset Classes

CANTOR ETF Group

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In recent years, ETFs have offered a welcome source of liquidity for bond investors, especially in sectors like high yield where trading in ETFs far outstrips the volume in the underlying securities. Yet recently, some investors have started to question whether that liquidity advantage is sustainable, or in the words of a writer at *Investment News*, a "mirage" (see The ETF Liquidity Mirage), luring investors into complacency about their ability to trade in difficult markets.

In February, the Federal Reserve expressed concerns about ETF liquidity, stating that, "[f]urthermore, the growth of bond mutual funds and exchange-traded funds (ETFs) in recent years means that these funds now hold a much higher fraction of the available stock of relatively less liquid assets—such as high-yield corporate debt, bank loans, and international debt—than they did before the financial crisis. As mutual funds and ETFs may appear to offer greater liquidity than the markets in which they transact, their growth heightens the potential for a forced sale in the underlying markets if some event were to trigger large volumes of redemptions." [1]

In our view, however, what ETFs offer is neither a liquidity miracle that solves all market inefficiencies nor an illusion. These securities are simply a useful, alternative tool that can be used, in combination with other products, to achieve an asset managers' objectives.

[1] "The ETF Liquidity Mirage" by Bob Rice, *Investment News*, June 2016. http://www.investmentnews.com/article/20160615/BLOG09/160619947/the-etf-liquidity-mirage

The Case for ETF Liquidity

The first point to understand is that many ETFs provide demonstrably better liquidity than the securities they track, across a range of asset classes. The chart below shows the spreads between bid and ask on 7 widely traded ETFs as compared to their underlying security. As you can see, the ETF is narrower in all cases, and much narrower for the SPDR Barclays High Yield Bond ETF (JNK) that tracks high-yield bonds.

ETF	Secondary Market Spread	Basket Spread	Avg. Daily Volume	Size of Trusts
SPY-SPDR S&P 500 ETF TRUST	0.4bps	2.4bps	91mm	$183.4bn
MDY-SPDR S&P MIDCAP 400 ETF TRUST	1.1bps	5.5bps	59.3mm	$16.1bn
IWM-ISHARES RUSSELL 2000 ETF	0.8bps	11bps	29.4mm	$25.9bn
QQQ-POWERSHARES QQQ TRUST SERIES	0.9bps	3bps	23.4mm	$35.5bn
EEM-ISHARES MSCI EMERGING MARKET	3.0bps	38bps	66.2mm	$22.3bn
LQD-ISHARES IBOXX INVESTMENT GRADE	0.90bps	65bps	4.1mm	$28.7bn
JNK-SPDR BARCLAYS HIGH YIELD BD	2.8bps	48bps	10.7mm	$11.9bn
DEUS-DEUTSCHE X-TRACKERS RUSSELL 1000	18bps	3.7bps	8.9k	$14.mm

Source: Cantor Fitzgerald June 27th, 2016

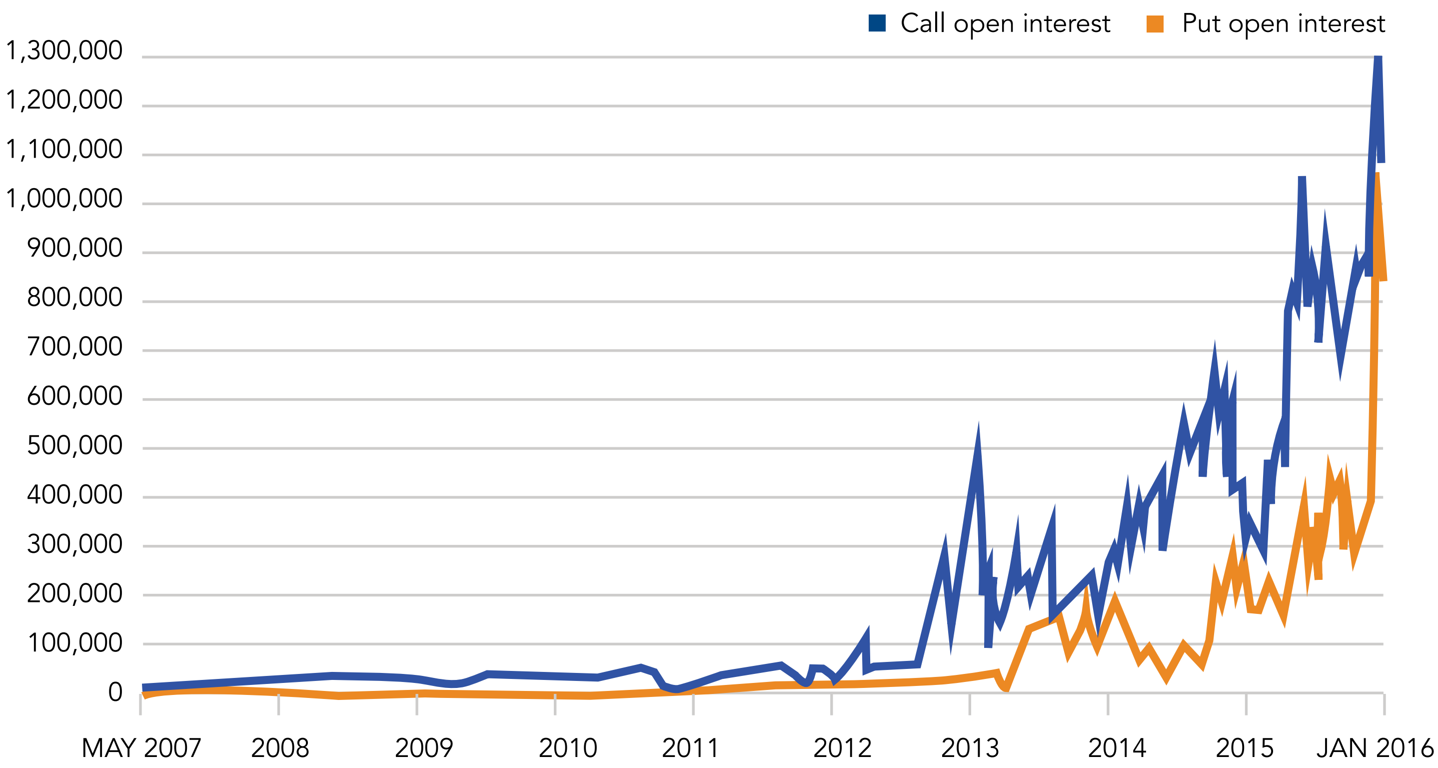
This should not be surprising, because in fact, there are a number of reasons why ETFs should be at least as liquid as their underlying baskets of securities.

An Explosion in Listed Options Adds Liquidity

- Since 2011, option trading in equities has doubled to the point where ETFs now account for about 70% of all equity option volume, or $77 billion of the approximate $110 billion traded per day.
- At the same time, trading in options on the iShares iBoxx High-Yield Corporate Bond ETF (HYG) has swelled from almost nothing in 2011 to more than $1 billion a day.

Options on the iShares iBoxx High-Yield Corporate Bond ETF Have Jumped

Call and put open interest



Source: Bloomberg http://www.bloomberg.com/news/articles/2016-01-08/that-giant-sucking-sound-you-hear-is-the-etf-options-market

Hedgers and Speculators Increase Secondary Volume

ETF liquidity also benefits from speculative trading in ETFs themselves, as well as listed options. Turnover in ETFs is many times that of the underlying securities; in 2015 for instance, we estimate ETF turnover to be about 940% versus around 165.1% for stocks. [2] The shift in speculative activity from underlying markets to ETFs increases liquidity in ETFs.

Multiple Vehicles Create Arbitrage Opportunities

A third element that increases ETF liquidity is the fact that there are so many of them. An investor who wants to trade in large-cap blend stocks similar to the S&P 500, for instance, can choose from nearly 100 alternatives. Similarly, high-yield bond investors can arbitrage differences between more than 40 ETFs in the category. If liquidity issues create mispricing in one or several ETFs in a category, investors will buy the undervalued ETFs and sell the overvalued ones, bringing prices back into line.

[2] The World Bank, "Stocks traded, turnover ratio of domestic shares (%)", June 23, 2016 http://data.worldbank.org/indicator/CM.MKT.TRNR?order=wbapi_data_value_2015+wbapi_data_value+wbapi_data_value-last&sort=desc

Most ETF Trades Don't Involve Creation/Redemption

Concerns around ETF liquidity have recently focused on the creation/redemption process, or the way in which authorized participants are charged with buying underlying securities to create ETF shares when ETFs are overvalued and breaking up ETFs into component securities when the ETF NAV rises above the underlying portfolio's value. Critics point out that authorized participants have no motivation other than profits when they make a market in ETFs—and that in times of market stress, when the underlying market is closed, for instance, or when securities are in freefall, they may not create or redeem shares until the situation has clarified.[3] Yet, this concern has generally not been born out, because most ETF trading occurs in the secondary market and don't require creation/redemption at all.

This has certainly been the case in the high-yield bond sector where Morningstar Senior ETF Analyst Jose Garcia-Zarate recently commented that, "Our analysis suggests that far from being agents of instability, high-yield bond ETFs have acted as a safety valve, allowing investors to express their investment views without unduly affecting the underlying market." Garcia Zarate further added that, "The bulk of secondary trading is regularly netted off between buyers and sellers of existing ETF shares."[4]

[3] "The ETF Liquidity Mirage" by Bob Rice, *Investment News*, June 2016. http://www.investmentnews.com/article/20160615/BLOG09/160619947/the-etf-liquidity-mirage
[4] "High-Yield Bond ETFs: A Primer on Liquidity" by Jose Garcia-Zarate, *Morningstar*, June 2016. http://media.morningstar.com/uk%5CMEDIA%5CResearch_Paper%5CHigh-Yield_Bond_ETFs_A_Primer_on_Liquidity.pdf

ETF Liquidity and Market Stress

Liquidity concerns stem partly from market-wide stress events such as August 24, 2015, when the Dow Jones industrial average saw its largest-ever intraday decline. Heavily traded stocks, including J.P. Morgan, General Electric and Ford, all saw price drops of 20% or more. A trading stoppage in just 8 S&P stocks had a dramatic impact on equity ETFs, many of which saw much larger price declines than the index they tracked.[5] In our view, this downturn resulted more from a failure in market structure and exchange rules than shortcomings in the ETF arbitration mechanism. Sharp losses in equities on the Asian exchanges spooked market participants the night before.

Uncertainty increased when the NYSE invoked Rule 48, which suspends the requirement that stock prices be announced when the market opens. Stocks were, therefore, difficult to price, and traders bid conservatively, causing spreads to widen. Trading halts in individual stocks further muddied the waters. It became very difficult for authorized participants to perform their creation/redemption function, and as a result, ETF values fluctuated wildly. The disruption was temporary, however. As soon as normal trading resumed, creation/redemption resumed and ETF valuations aligned with their underlying portfolios again.[6]

[5] "U.S. Equity Market Structure: Lessons from August 24," SEC Comments, Blackrock, October 2015. https://www.sec.gov/comments/265-29/26529-52.pdf
[6] Ibid.

Primary and Secondary Trading

Under ordinary circumstances—and given the normal amount of information about pricing—ETF prices don't deviate far from the value of their underlying portfolios. Liquidity in the ETF market, then, is a perfectly acceptable substitute for liquidity in the underlying market. Moreover, there are other instances where ETF trading has continued, even when the underlying market has closed. For example, the Market Vectors Egypt ETF (EGPT) provided liquidity when markets were shuttered for two months after the ouster of President Mubarak. The Global X MSCI Greece ETF (GREK) continued trading during a five-week closure in the summer of 2015.

Source: Bloomberg, June 27, 2016

In both these cases, ETFs traded at larger premiums and discounts, given the lack of real-time underlying pricing, but they continued to provide liquidity.[7]

[7] "Analysis: U.S. Egypt ETF likely to fall when bourse reopens," by Aaron Pressman, Reuters, February 28, 2011. http://www.reuters.com/article/us-egypt-etf-idUSTRE71R6X520110228 and "While Athens Exchange is Closed, the Greece ETF Show Goes On" by Tom Lydon, ETF Trends, July 6, 2015. http://www.etftrends.com/2015/07/while-athens-exchange-is-closed-the-greece-etf-show-goes-on/

A Stable Source of Liquidity

ETFs will continue to provide additional liquidity in many markets, including both heavily traded ones like large-cap stocks and less liquid ones like high-yield bonds. These vehicles are not magic bullets—in some volatile, low-information markets, they may provide less liquidity than others. However, they remain a useful tool for trading, active management, hedging and many other portfolio strategies.

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