Developments in Fixed Income ETF Trading

Fixed income exchange traded funds (ETFs) are transforming the traditionally fragmented and opaque fixed income marketplace. This paper highlights how developments in fixed income ETF trading are providing users with additive liquidity benefits and implementation flexibility.

The first fixed income ETF was launched in 2002 and today there are 384 US-listed fixed income ETFs with $763.9 billion in assets under management. Many consider the financial crisis to be a central catalyst in fixed income ETFs’ growth. Driven by the tighter post-crisis regulatory environment, the shifting market structure of secondary fixed income trading has helped to steer investors toward additional sources of liquidity. These dynamics combined with progress toward electronic trading led many banks to transition from a principal-based dealer to an agency trading model.

The US corporate bond segment has contributed significantly to overall ETF asset and liquidity growth. This segment of the bond market relies heavily on principal-based market making services. As dealer bond inventories have declined from regulatory initiatives and overall corporate bond issuance has varied dramatically over time, corporate bond ETFs have experienced significant increases in secondary trading. This progress can be attributed to greater focus on inventory management and market making services, integration of fixed income ETFs as a derivative alternative, technological advancements — and a broadening client user base.

Developments in corporate bond ETF trading are evident in the secondary trading profile of the SPDR Bloomberg Barclays High Yield Bond ETF (JNK). As illustrated in Figure 1 JNK’s average annual premium and discount volatility has declined over the last 10+ years. Given these dynamics, JNK’s continuous market price has become a price discovery tool for the underlying constituents.
What Is Additive Liquidity?

The centralized marketplace and price transparency features offered through exchange trading becomes particularly pronounced during periods of market stress. In these environments, traditional fixed income market structure makes it difficult to source liquidity as dealers may be less willing to commit capital — at exactly the time when investors need it most. Amid this uncertainty, investors have gravitated away from attempting to trade many individual corporate bond line items and leaving open orders (with low confidence of execution) on what they cannot sell immediately, and toward the ETF as a dependable source of liquidity.

As illustrated in Figure 2, JNK has experienced significant increases in secondary trading volume during periods of higher relative volatility. The volume spikes can be contextualized by comparing the notional value traded to that of the underlying bonds. The ratio of secondary to primary trading increases as the ETF is used as a preferred vehicle to transfer risk during these periods. JNK secondary market value traded has averaged roughly 5.7% of the underlying high yield bond dollar volumes over the previous four year period, but that percentage historically increases to 10–20% during times of market stress.²

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² This information is provided for illustrative purposes and should not be considered as investment advice.
In addition to providing an alternative source of liquidity from traditional over-the-counter (OTC) markets, ETFs provide an efficient wrapper in which secondary market trading may provide transactiional cost efficiency relative to trading the underlying basket of bonds. As outlined below, spreads for high yield ETFs are significantly tighter than implied spreads of the underlying bonds based on Index Liquidity Cost Scores (LCS).

**Figure 3**  
Reduced Transactions Costs

<table>
<thead>
<tr>
<th>ETF Description</th>
<th>Quoted ETF Spread*</th>
<th>Index Liquidity Cost Score**</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPDR Bloomberg Barclays High Yield Bond ETF (JNK)</td>
<td>11.0</td>
<td>31.8</td>
</tr>
<tr>
<td>SPDR Bloomberg Barclays Short Term High Yield Bond ETF (SJNK)</td>
<td>11.0</td>
<td>32.7</td>
</tr>
<tr>
<td>SPDR Portfolio Intermediate Term Corporate Bond ETF (SPIB)</td>
<td>12.0</td>
<td>18.4</td>
</tr>
<tr>
<td>SPDR Portfolio Long Term Corporate Bond ETF (SPLB)</td>
<td>24.3</td>
<td>56.8</td>
</tr>
<tr>
<td>SPDR Bloomberg Barclays Convertible Securities ETF (CWB)</td>
<td>17.0</td>
<td>32.1</td>
</tr>
</tbody>
</table>


* "Institutional size" defined as $50mm for SJNK, JNK, SPIB, SPLB, CWB.

** As represented by the Barclays Liquidity Cost Score (LCS) metric for the respective index.

There can be no assurance that a liquid market will be maintained for ETF shares.

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**Net Asset Value (NAV) and Premium/Discount**

As a result of the dynamics of fixed income pricing, bond-based ETFs generally trade at a premium to Net Asset Value (NAV). The reason for this is that the ETF will most often trade near the midpoint of the underlying basket bid-ask spread, while the NAV is priced on the bid side of the market. Fixed income premiums or discounts may reflect market sentiment as well as the liquidity risk market makers face to buy or sell the underlying cash bonds. This dynamic is frequently highlighted during fear-driven market environments in which the typical ETF premium may diminish or potentially result in the fund trading at a discount to NAV.
In 2018, $8.79B traded notionally on a daily basis in the US-listed fixed income ETF space. Growth in secondary trading volume has enabled the ETF to be used as a tool to express many types of trading styles and priorities. Execution strategy decisions should take into consideration both primary market implied basket liquidity and secondary market ETF trading profile.

Our Capital Markets team offers trading education and support for a range of strategies, including:

**Low-Touch Trading Strategies**

ETFs, as equity securities, can be traded using low-touch strategies with potentially enhanced measurable execution results. Popular algorithmic equity execution strategies are available to fixed income investors including strategies benchmarked to the Time Weighted Average Price (TWAP) or the Volume Weighted Average Price (VWAP) in which investors can target execution participation strategies based on windows in time or alongside volume measured participation, respectively. In addition to these relatively common and straightforward strategies, there are a plethora of other algorithmic trading strategies available to investors across providers.

**Risk Trading**

For larger block trades, investors can engage liquidity providers for immediate execution. Market makers will offer a single price execution for the order, manage the risk, and create or redeem ETF shares as needed. Execution can be easily measured against the ETF indicative NAV calculation, national best bid and offer (NBBO), and/or arrival price.

The increase of Request-For-Quote (RFQ) platforms have created streamlined tools for buy-side clients to access large pools of liquidity providers anonymously. Many of these platforms offer additional services including built-in trade analysis and historical best execution reporting.

**Other Trading Benchmarks**

Orders can be benchmarked to official NAV pricing for investors seeking to benchmark their execution to bid/ask in fixed income terms or those whose performance is benchmarked to a broader index. It is also important to be aware that the ETF execution costs can be measured in traditional fixed income metrics, namely in terms of yield and spread. Additionally, more commonly utilized equity order types of Market-On-Open (MOO) or Market-On-Close (MOC) offer easily measurable execution targets based on the opening or closing US ETF market price; however, we recommend caution using these order types when trading ETFs as the market for MOO/MOC orders for the ETF may differ dramatically than that of the underlying securities and NAV calculations.

**Transfer of Assets**

Large institutional owners of underlying bonds have utilized the in-kind creation and redemption features of the ETF to exchange bonds for ETF shares. The exchange of bonds for ETF shares may help avoid associated transaction costs of selling the individual bonds by offering access to secondary market ETF trading. Additionally, an ETF offers a passively managed exposure in a single line item instead of multiple bonds for operational ease of use.

**OTC Derivative Alternative**

ETF options and securities lending markets have developed on many of the most liquid ETFs. The flexibility of the ETF wrapper and associated products supports usage as an efficient alternative to other derivative products. There has also been continued growth in relative value trading as investors compare fixed income ETFs to other vehicles.
Looking Ahead: Increased Liquidity and Flexibility

The centralized and transparent exchange trading versus the fragmented and opaque bond trading environment offers real-time and continuous pricing during US equity market trading hours. Developments in secondary ETF trading profiles provide investors spreads that may be tighter than the underlying basket of securities — resulting in transaction cost savings. The centralized exchange trading of the ETF wrapper attracts significant activity in times of uncertainty as fixed income investors utilize the ETF as a source of additive liquidity.

Finally, the ETF has dramatically expanded implementation flexibility for traditional fixed income investors. In addition to the ability to access equity order type management options, new and innovative uses of the ETF wrapper continue to gain traction. All of this activity builds a stronger ETF ecosystem that ultimately delivers trading efficiency benefits to all investors.

About SPDR Capital Markets

We are responsible for building relationships with SPDR ETF authorized participants, market makers, liquidity providers, execution trading desks/platforms and stock exchanges. Our team plays an active role in promoting competitive markets and maintaining the SPDR ETF liquidity ecosystem.

Given our insight into primary and secondary market activity as well as our access to a wide variety of pre-trade liquidity analytics tools, the SPDR Capital Markets team is dedicated to working closely with clients to help educate them about the nuances of ETF execution and ultimately ensure they are equipped with the knowledge necessary to most effectively trade SPDR ETFs.

Learn More Please contact the SPDR ETF Capital Markets Group with any questions regarding ETF liquidity and execution at SPDRCapitalMarketsUS@ssga.com

Endnotes

1 Bloomberg Finance, L.P., as of June 27, 2019.

2 It is also worth highlighting that new financial market regulation has been centered on liquidity stressed markets. One example of this is the “Liquidity Rule” for open-end funds registered under the Investment Company Act of 1940. ETFs may provide a liquidity enhancement tool for other open-end funds to comply with this new regulation and lead to further usage during these periods.
About State Street Global Advisors

Our clients are the world's governments, institutions and financial advisors. To help them achieve their financial goals we live our guiding principles each and every day:

Start with Rigor  We take a highly disciplined and risk-aware approach built on exhaustive research, careful analysis and market-tested experience to meet client needs. Rigor is behind every decision we make.

Build from Breadth  Today’s investment problems demand a breadth of capabilities. We build from a universe of active and index strategies to create cost-effective solutions.

Invest as Stewards  We help our portfolio companies see that what is fair for people and sustain-able for the planet can deliver long-term performance. As fiduciaries, we believe good stewardship is good investing.

Invent the Future  We created the first ETF in the US and are pioneers in index, active, and ESG investing. Using data, insights and investment skill, we are always inventing new ways to invest.

For four decades, these principles have helped us be the quiet power in a tumultuous investing world. Helping millions of people secure their financial futures. This takes each of our employees in 27 offices around the world, and a firm-wide conviction that we can always do it better. As a result, we are the world’s third-largest asset manager with US $2.9 trillion* under our care.

*  AUM reflects approximately $36 billion (as of June 30, 2019), with respect to which State Street Global Advisors Funds Distributors, LLC (SSGA FD) serves as marketing agent; SSGA FD and State Street Global Advisors are affiliated.

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