GETTING AHEAD OF THE CURVE

Bond ETFs are powerful tools for investors
EXECUTIVE SUMMARY

Bond exchange traded funds (ETFs) have transformed how investors build fixed income portfolios in the nearly two decades since iShares pioneered them.

Bond ETFs allow investors to access broad or targeted areas of the fixed income markets in a transparent and low-cost manner. They are available in a rich diversity of exposures and trade on exchange. These attributes make bond ETFs useful as building blocks for multiple types of investment strategies. Investors can use bond ETFs to efficiently implement core, “beta” exposures, or to tilt portfolios to specific durations, yields, and sectors.¹ The efficiency of using bond ETFs in portfolio construction for core beta exposures and opportunistic tilts frees up managers to pursue higher-conviction strategies.

The ETF structure allows investors to transact on exchange, just like they do with stocks. On-exchange trading affords transparency in pricing and execution. Both of which are not available in the more opaque, over-the-counter bond markets, particularly in less liquid, more fragmented sectors such as high yield corporates, emerging market debt, and municipal bonds. The trading versatility of bond ETFs allows investors to trade in or out of positions efficiently. Moreover, the existence of tradable, index-based bond ETFs provides a much needed level of standardization in the fragmented and discontinuously liquid OTC markets.

1. Beta exposures seek to provide investors the risk and return of a specific market or index.
Investors use index-tracking bond ETFs to build custom portfolios and to meet their unique investment needs, whether through strategic or tactical allocation trades.

Bond ETF investors are hardly passive. They make active and deliberate decisions every time they allocate among broad market, sector, duration, or credit quality exposures.

An ever-broadening range of bond ETFs provides investors with precision tools for targeting exposures and outcomes. Investors may choose among broad multi-sector exposures, such as the U.S. Aggregate which measures the performance of investment grade bonds in the U.S. Or specific sectors, such as investment grade and high yield corporate bonds, or emerging market debt. Index-tracking bond ETFs provide investors with control and precision.

**Bond ETFs: tools for broad to narrow exposure**

**Broad multi-sector**
- Example: Aggregate or Universal Bond Index Funds

**Sub-sector focused**
- Example: Treasuries, Corporates or Municipal Bond Index Funds

**Credit quality or duration focused**
- Example: Short or Long Duration, Investment Grade or High Yield Bond Index Funds
What you see is what you get

Active bond manager performance can differ significantly from their fund’s stated reference benchmark. Many managers do generate “alpha,” or returns in excess of their benchmarks. However, much of this “outperformance” can often be attributed to tilts to riskier sectors and/or out of benchmark securities. Many active managers, for instance, tilt to high yield, emerging markets, or other higher-yielding sectors outside of their stated reference benchmark. Fund investors may be unaware of the out-of-benchmark allocations that these managers can make and the resulting risks that may be added to a portfolio. In contrast, index-tracking bond ETFs are mandated to seek the stated performance of their indexes, minus fees, so investors know what exposures to expect from an ETF.

What’s more, many index-tracking bond ETFs have demonstrated competitive performance relative to actively managed funds in their respective Morningstar categories, in part due to the generally higher management fees of actively managed funds. As an example, the average management fee for the Morningstar Intermediate Core Bond Fund category is 0.67% compared with 0.04% for the iShares Core U.S. Aggregate Bond ETF.² Median active manager performance in this category is often below that of the stated benchmark and investors may achieve better performance by simply investing in an index bond ETF.

### Bond ETF Morningstar Category percentile rankings

<table>
<thead>
<tr>
<th>Ticker</th>
<th>iShares ETF</th>
<th>Morningstar Fund Category</th>
<th>% Rank in Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGG</td>
<td>iShares Core U.S. Aggregate Bond ETF</td>
<td>Intermediate Core Bond</td>
<td>36 29 51</td>
</tr>
<tr>
<td>LQD</td>
<td>iShares iBoxx $ Investment Grade Corporate Bond ETF</td>
<td>Corporate Bond</td>
<td>7 8 21</td>
</tr>
<tr>
<td>MUB</td>
<td>iShares National Muni Bond ETF</td>
<td>Muni National Intermediate</td>
<td>19 18 27</td>
</tr>
<tr>
<td>TIP</td>
<td>iShares TIPS Bond ETF</td>
<td>Inflation Protected Bond</td>
<td>19 26 22</td>
</tr>
<tr>
<td>EMB</td>
<td>iShares J.P. Morgan USD Emerging Markets Bond ETF</td>
<td>Emerging Market Bond</td>
<td>29 18 11</td>
</tr>
<tr>
<td>HYG</td>
<td>iShares iBoxx $ High Yield Corporate Bond ETF</td>
<td>High Yield Bond</td>
<td>55 43 51</td>
</tr>
</tbody>
</table>

Source: Morningstar, as of 6/30/20. Comparison universe is ETFs and mutual funds in the Morningstar category and uses total return. Total return represents changes to the NAV and accounts for distributions from the funds (excluding any applicable sales charges). Percentile ranking in category represents outperformance of the fund’s total return relative to all funds that have the same Morningstar Category. The following number of funds were used for the 1, 5 and 10 year period percentile rankings: Intermediate Core Bond: 420, 330 and 248 funds. Corporate Bond: 214, 141 and 90. Muni National Intermediate: 281, 211 and 155. Inflation Protected Bond: 212, 170 and 115. Emerging Market Bond: 276, 181 and 55. High Yield Bond: 703, 546 and 346. Past performance does not guarantee future results.


Learn more about bond ETF performance on iShares.com
Bond ETFs have traded continuously and orderly in stressed markets, a potential advantage for investors over individual bonds and mutual funds.

Investors all of sizes and levels of sophistication rely on bond ETFs for liquidity in their portfolios in a way that neither individual bonds nor actively managed funds can provide. Bond ETFs allow investors to access broad or narrow markets, quickly, efficiently and in a single trade.

Given how individual bonds can often be less liquid, more costly and time consuming to trade, the on exchange liquidity of bond ETFs benefits all types of investors including global institutions, U.S. financial advisors and personal investors. The deep liquidity of bond ETFs has helped investors navigate liquidity challenges in certain fixed income sectors such as high yield and emerging markets. Empirical evidence also shows that trading volumes in many bond ETFs actually have tended to increase, not decrease during periods of market stress and that bond ETFs provided investors with liquidity and transparency when they needed it most.

**HYG volume has gone up during stressed markets**

Source: Bloomberg, BlackRock, as of 6/30/20. Volume based on 20-day average. There can be no assurance that an active trading market for shares of an ETF will develop or be maintained.
Take the iShares iBoxx $ High Yield Corporate Bond ETF (HYG) as an example. Time and time again through periods of market stress—the 2008 financial crisis, the 2013 “taper tantrum,” and sell-offs in 2015, late 2018, and early 2020—HYG’s volume on exchange sharply increased as opposed to diminished. During the first quarter of 2020, HYG’s average daily trading volume rose to nearly two times the average volumes seen in 2019, at $3.2 billion. When looking at specific daily flows, HYG’s trading volumes were multiples of this average, specifically on February 28 when volumes spiked to $8.5 billion. Subsequent days in March also saw elevated activity with monthly volumes averaging $4.5 billion. The bid-ask spread remained a penny wide throughout that time period.3

After many years of convincing battle tests, investors are increasingly relying on bond ETFs to manage the risk and exposure in their portfolios.

**HYG’s trading volume compared to stock in the DJIA**

$16B

Average daily trading volume ($B)

HYG has traded more than 27 of the 30 stocks in the DJIA

$2.87B

Average daily trading volume ($B)

Stocks in the Dow Jones Industrial Average

Source: Bloomberg, BlackRock, S&P Dow Jones, as of 6/30/20. Volume based on a full-year average. There can be no assurance an active trading market for shares of an ETF will develop or be maintained.

Learn more about the iShares iBoxx $ High Yield Corporate Bond ETF

iShares pioneered bond ETFs in 2002.

iShares bond ETFs are managed by teams of fixed income professionals who have deep trading and portfolio management experience. Index investment teams combine technology, index research and human expertise in an effort to meet bond ETF investment objectives and deliver superior tracking performance.

iShares bond ETFs are managed to balance tracking error, liquidity, and transaction costs. Moreover, BlackRock’s portfolio management process allow iShares bond ETFs to:

- Participate in the new issue market
- Evolve portfolios throughout the month as opposed to rebalancing on single day at month-end
- Avoid situations that may result in forced selling or buying

BlackRock’s portfolio managers use a stratified sampling approach rather than holding every bond in an index. Sampling allows managers to thoughtfully select a subset of bonds that they believe will deliver the index performance while maintaining liquidity and minimizing transaction costs.

A flexible process helps index managers avoid potential pitfalls

Index portfolio managers have flexibility to:

1. Balance portfolio tracking error and costs
2. Manage monthly rebalances for:
   - New issuance
   - Bonds rolling out of the maturity range
   - Calls or refinancing
   - Defaults, downgrades or upgrades
   - MBS paydowns
   - Coupon payments

Learn more about iShares bond ETFs
CONCLUSION

Index-tracking bond ETFs offer benefits to all types of investors.

The broadening range of fixed income indexes and bond ETFs provides all investors with an increasing degree of precision to construct portfolios.

Bond ETFs transform the opaque and fragmented bond market into standardized, predictable, and efficient exposures that seek to deliver investment objectives at a low cost. Through bond ETFs, investors can build and adjust portfolios quickly and efficiently, without having to trade large numbers of individual bonds.

Bond ETFs are indispensable tools for fixed income investors and are now an integral part of the bond market. iShares pioneered bond ETFs and BlackRock has the experience to deliver quality and performance that investors deserve.

Carefully consider the Funds’ investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the Funds’ prospectuses or, if available, the summary prospectuses which may be obtained by visiting www.iShares.com or www.blackrock.com. Read the prospectus carefully before investing. Investing involves risk, including possible loss of principal.

Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. Non-investment-grade debt securities (high-yield/junk bonds) may be subject to greater market fluctuations, risk of default or loss of income and principal than higher-rated securities.

Shares of iShares ETFs may be bought and sold throughout the day on the exchange through any brokerage account. Shares are not individually redeemable from the ETF, however, shares may be redeemed directly from an ETF by Authorized Participants, in very large creation/redemption units. There can be no assurance that an active trading market for shares of an ETF will develop or be maintained.

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