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iSHARES INVESTIGATES: MARKET INDICES AND INDEX INVESTING

Part 3 | Fixed income index rebalances

Introduction

Fixed income exchange traded funds (ETFs) provide investors with transparent, cost-efficient, and diversified access to the bond market. The rapid growth in adoption of these products by all investor types resulted in global fixed income ETF assets under management (AUM) reaching $USD1.5 trillion in 2020—a 700% increase from a decade prior.[1]

Many fixed income ETFs are index-based, which means they seek to deliver the performance of a market index, such as the Bloomberg Barclays U.S. Aggregate Bond Index. Because index providers frequently rebalance, or make changes to the composition of their indices, index-tracking ETFs must regularly adjust their portfolio holdings to reflect these changes in order to continue tracking the underlying index.[2]

The structure of the bond market presents unique complexities for managers of fixed income ETFs, particularly when indices are rebalancing. This article explores BlackRock's approach to navigating fixed income index rebalances and the ways in which BlackRock portfolio managers ("PMs") deliver on fixed income ETF investment objectives for investors.

Fixed income ETF portfolio management is unique

Fixed income ETFs allow investors the ability to access broad or targeted areas of the fixed income markets in a transparent and low-cost manner. However, there are structural nuances to the bond market that can add complexity for PMs seeking to drive consistent performance outcomes. These include:

- **Opaque pricing.** Bonds are primarily traded over-the-counter (OTC) between two parties (e.g., a broker-dealer and an investor, typically an institution). Transparency into the cost of trading or pricing of bonds can be low (versus on a centralised exchange where all trading activity and data is publicly available) as a result.
- **Monthly new issuances.** Every month there are new bonds to be considered for index inclusion.
- **Fixed lifespan.** Bonds have a fixed maturity date, which can impact their eligibility for inclusion in certain indices.
- **Credit events.** Bonds that have credit ratings that fall below Investment Grade (i.e., "Fallen Angels") are typically managed out of Investment Grade indices by month-end of the downgrade. Conversely, bonds that are upgraded (i.e., "Rising Stars") will typically be included at month-end.
- **Low liquidity.** Most bonds trade infrequently. For example, out of more than 21,000 publicly registered corporate bonds, fewer than 1% trade daily in the OTC market.[3]

[1] As of 31 December, 2020. Source: BlackRock, Bloomberg, Markit. Global fixed income ETF AUM was $USD198.1 billion on 31 December, 2010. [2] For more information on the role of index providers, see iShares Investigates: Market indices and Index Investing | Part 1: The role of index providers [3] Citigroup, "The coming revolution in credit portfolio trading" (November 2019).

Overview of fixed income index rebalances

While each index provider has its own proprietary set of rules for index construction, there are some common features generally associated with fixed income indices. For example, unlike stock indices (which rebalance only a few times each year), most fixed income indices rebalance monthly to capture changes in the bond market, which can include new bond issuance, rating changes (upgrades and downgrades), coupon payments, principal paydowns and bonds rolling out of the maturity window.[4] These frequent changes mean that fund managers seeking to track these indices must plan` for portfolio adjustments every month.

BlackRock's process for managing fixed income index rebalances

Often, index changes may impact thousands of BlackRock portfolios (**Figure 1**), so managing portfolios with precision at scale is of primary importance.

iShares fixed income ETFs are managed by teams of fixed income professionals who have deep trading and portfolio management expertise.

BlackRock PMs utilise a combination of technology, index research, and skill to pursue investment objectives while balancing tracking error, liquidity, and transaction costs.

BlackRock's flexible portfolio management process allows PMs to proactively, dynamically, and efficiently execute changes in ETF portfolios as the market evolves. For example, to account for new additions to an index, PMs will often participate in the new issue market, adjust portfolios throughout the month (instead of rebalancing on a single day at month-end), and avoid situations that may result in forced buying or selling. By participating in the new issue market, BlackRock PMs can acquire a bond when it is issued rather than at month-end when it is added to the index. This can offset some of the transaction costs (like the bid-ask spread) of buying the bond in the secondary market after issuance. This process works because ETFs generally have some flexibility to hold up to a certain percentage of non-index names.

Figure 1: BlackRock's Global index fixed income platform by the numbers ($USD)[5]

2,200+	Index funds managed by BlackRock PMs
770+	Unique indices tracked
$3.2T	High Yield and Investment Grade assets under management

Fixed income ETF portfolio management 101

Managers of index-based ETFs strive to track the performance of an ETF's underlying index as closely as possible. There are two primary portfolio management techniques that PMs can use to pursue an ETF's investment objective.

One method is to fully replicate the index. In other words, the PM builds a portfolio where the holdings of the ETF match all the index securities in the same weights. This method is typically used when an ETF seeks to track an index composed of a limited number of highly liquid securities, such as U.S. large-cap equities.

In less liquid markets, like fixed income, full replication is less feasible, so PMs may use a representative sampling strategy instead. This approach seeks to deliver the risk and return characteristics of the index by holding a subset of the index's securities. To do this, the PM divides each index into groups of bonds with specific risk factors (such as maturity, credit rating, or sector), then selects bonds from each group to build a portfolio that reflects similar characteristics to its underlying index, including yield and duration, in order to replicate the index returns as closely as possible.

The creation and redemption mechanism can help the PMs to efficiently manage the rebalancing process throughout the month. Most creations and redemptions of iShares fixed income ETFs occur "in-kind," which means the ETF and the authorised participant (AP) exchange bonds in lieu of cash for ETF shares. When ETF shares are being created or redeemed by APs, the PM confirms that bonds entering or exiting the fund will help the ETF track its index.[6]

[4] For more information on equity index rebalances, see iShares Investigates: Market indices and Index Investing | Part 2: Equity index rebalances [5] Source: BlackRock, as of 31 December, 2020. [6] For more information on APs and the ETF creation and redemption process, see iShares Investigates: The ETF Ecosystem | Part 1: Authorized participants and market makers

Index rebalances in March and April 2020

As market volatility intensified in March 2020, index providers in the U.S. reviewed the implications of moving forward with March and April month-end rebalances. There were several factors that index providers took into consideration:

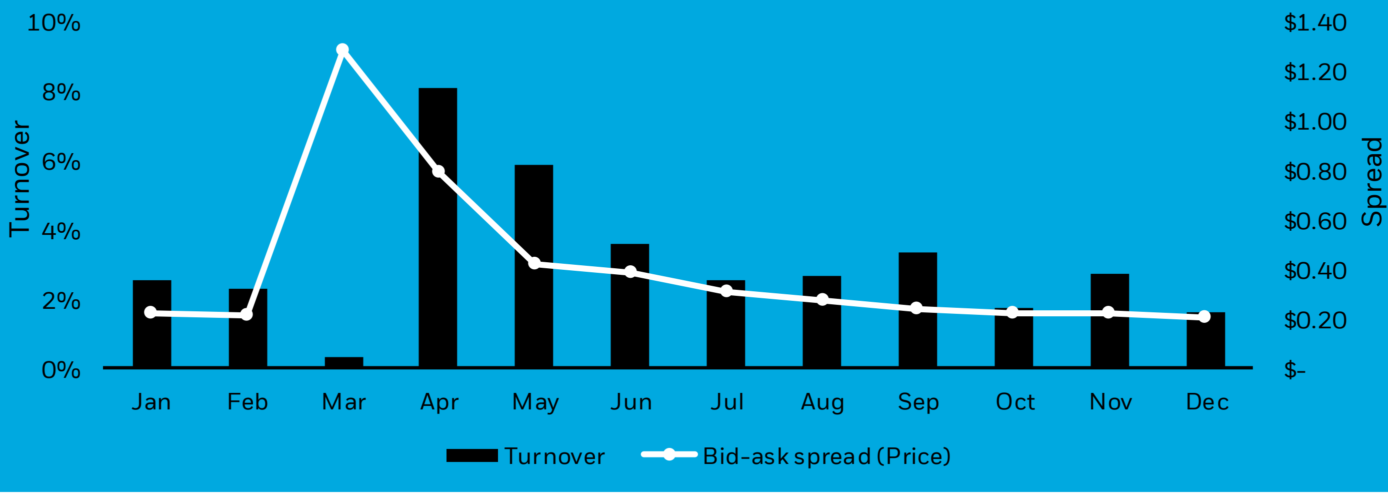
- **Market conditions.** Increased volatility across all asset classes and products created challenges for index rebalancing as liquidity dried up in the bond market.
- **Downgrades.** Rating agencies downgraded issuers after considering the economic impact of the global pandemic. Issuers that were no longer rated investment grade had to be removed from investment grade bond indices and added to high yield bond indices.
- **Price volatility**. Challenging liquidity conditions impacted bid-ask spreads (the cost of trading into and out of securities), making it more costly to rebalance portfolios.

With these considerations in mind, some index providers chose to postpone their index rebalances from March 2020 to the end of April 2020. By this time, trading costs and overall market liquidity had improved and trading in the April rebalances was orderly, despite higher trading activity than the 2020 average.[7]

For example, delaying the March rebalance in the ICE Corporate Bond Index, an investment grade corporate bond index, resulted in an 8% turnover in the April rebalance—almost three times the average turnover in 2020 (**Figure 2**).[8]

While the average bid-ask spread of bonds in the same index tightened to $0.79 (versus $1.29 in March), they were still wider than the 2020 average.[9] To minimise trading costs, BlackRock PMs participated steadily in the new issue market throughout the month to proactively rebalance portfolios.

Figure 2: Investment grade bond turnover and spread in 2020[10]



The bottom line

Though they occur frequently, index change events can be difficult to manage. The nuanced structure of the bond market adds a layer of complexity to fixed income index rebalances. There's nothing passive about fixed income ETF portfolio management, with PMs making thousands of decisions seeking to deliver the tracking performance investors expect. BlackRock PMs leverage a combination of technology, research and skill to navigate these events as they seek to deliver precise outcomes for investors in all market conditions.

[7] For more information on fixed income rebalances in March and April 2020, see "Lessons from COVID-19: Fixed Income Index Rebalancing" [8] Turnover is a measure of trading volume relative to the face value of bonds outstanding. Source: ICE, BlackRock, as of 31 December, 2020. [9] Source: ICE, BlackRock, as of 31 December, 2020. [10] Source: ICE, BlackRock, as of 31 December, 2020.

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