

iSHARES INVESTIGATES: MARKET INDEXES 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 \$1.5 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 indexes, 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 indexes 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 centralized 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 indexes.
- **Credit events.** Bonds that have credit ratings that fall below Investment Grade (i.e., "Fallen Angels") are typically managed out of Investment Grade indexes 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 December 31, 2020. Source: BlackRock, Bloomberg, Markit. Global fixed income ETF AUM was \$198.1 billion on December 31, 2010. ² For more information on the role of index providers, see [iShares Investigates: Market Indexes 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 indexes. For example, unlike stock indexes (which rebalance only a few times each year), most fixed income indexes 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 tracking these indexes 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 utilize a combination of technology, index research and skill to meet 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 index fixed income platform by the numbers (\$USD)⁵

2,200+ Index funds managed by BlackRock PMs

770+ Unique indexes 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 authorized 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 Indexes and Index Investing | Part 2: Equity index rebalances](#) ⁵ Source: BlackRock, as of December 31, 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 indexes and added to high yield bond indexes.
- **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 minimize 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 2020¹⁰



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 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 December 31, 2020. ⁹ Source: ICE, BlackRock, as of December 31, 2020. ¹⁰ Source: ICE, BlackRock, as of December 31, 2020.

Risks

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors may not get back the amount originally invested.

Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

Changes in the rates of exchange between currencies may cause the value of investments to diminish or increase. Fluctuation may be particularly marked in the case of a higher volatility fund and the value of an investment may fall suddenly and substantially. Levels and basis of taxation may change from time to time.

All figures are denominated in U.S. dollars, unless otherwise noted.

This material is intended for the following audiences in each respective country or region: In the U.S.: public distribution. **In Canada:** public distribution. **In the UK and EEA: Professional Clients (as defined by the Financial Conduct Authority or MiFID Rules) and Qualified Investors only and should not be relied upon by any other persons.**

Important Information about iShares ETFs

For U.S. investors: 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.

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. Diversification and asset allocation may not protect against market risk or loss of principal.

Transactions in shares of ETFs may result in brokerage commissions and will generate tax consequences. All regulated investment companies are obliged to distribute portfolio gains to shareholders. When comparing stocks or bonds and ETFs, it should be remembered that management fees associated with fund investments are not borne by investors in individual stocks or bonds.

This material is provided for educational purposes only and is not intended to constitute investment advice or an investment recommendation within the meaning of federal, state or local law. You are solely responsible for evaluating and acting upon the education and information contained in this material. The information and opinions are derived from proprietary and non-proprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy. BlackRock will not be liable for direct or incidental loss resulting from applying any of the information obtained from these materials or from any other source mentioned. BlackRock does not render any legal, tax or accounting advice and the education and information contained in this material should not be construed as such. Please consult with a qualified professional for these types of advice.

This information should not be relied upon as research, investment advice, or a recommendation regarding any products, strategies, or any security in particular. This material is strictly for illustrative, educational, or informational purposes and is subject to change. This material does not constitute an offer or solicitation in any jurisdiction where or to any persons to whom it would be unauthorized or unlawful to do so.

The iShares and BlackRock Funds that are registered with the US Securities and Exchange Commission are distributed in the US by BlackRock Investments, LLC (together with its affiliates, "BlackRock"). This material does not constitute an offer or solicitation to sell or a solicitation of an offer to buy any shares of any Fund (nor shall any such shares be offered or sold to any person) in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction.

This material is for distribution to Professional Clients (as defined by the Financial Conduct Authority or MiFID Rules) only and should not be relied upon by any other persons.

Until 31 December 2020, issued by BlackRock Advisors (UK) Limited, authorised and regulated by the Financial Conduct Authority. Registered office: 12 Throgmorton Avenue, London, EC2N 2DL. Tel: +44 (0)20 7743 3000. Registered in England and Wales No. 00796793. For your protection, telephone calls are usually recorded. Please refer to the Financial Conduct Authority website for a list of authorised activities conducted by BlackRock.

From 1 January 2021, in the event the United Kingdom and the European Union do not enter into an arrangement which permits United Kingdom firms to offer and provide financial services into the European Economic Area, the issuer of this material is:

(i) BlackRock Advisors (UK) Limited for all outside of the European Economic Area; and

(ii) BlackRock (Netherlands) B.V. for in the European Economic Area,

BlackRock (Netherlands) B.V. is authorised and regulated by the Netherlands Authority for the Financial Markets. Registered office Amstelplein 1, 1096 HA, Amsterdam, Tel: 020 – 549 5200, Tel: 31-20-549-5200. Trade Register No. 17068311 For your protection telephone calls are usually recorded.

FOR QUALIFIED INVESTORS IN SWITZERLAND: This document is marketing material. This document shall be exclusively made available to, and directed at, qualified investors as defined in the Swiss Collective Investment Schemes Act of 23 June 2006, as amended ("CISA").

In DIFC: The information contained in this document is intended strictly for Professional Clients as defined under the Dubai Financial Services Authority ("DFSA") Conduct of Business (COB) Rules.

The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock.

The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

The information contained in this document, may contain statements that are not purely historical in nature but are "forward-looking statements". These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser.

In Singapore, public distribution. Issued by BlackRock (Singapore) Limited (Co. registration no. 200010143N). This advertisement or publication has not been reviewed by the Monetary Authority of Singapore. **In Hong Kong,** public distribution. Issued by BlackRock Asset Management North Asia Limited. This material not been reviewed by the Securities and Futures Commission of Hong Kong.

In South Korea, this information is issued by BlackRock Investment (Korea) Limited. This material is for distribution to the Qualified Professional Investors (as defined in the Financial Investment Services and Capital Market Act and its sub-regulations) and for information or educational purposes only, and does not constitute investment advice or an offer or solicitation to purchase or sell in any securities or any investment strategies. **In Taiwan**, Professional Investors. Independently operated by BlackRock Investment Management (Taiwan) Limited. Address: 28F., No. 100, Songren Rd., Xinyi Dist., Taipei City 110, Taiwan. Tel: (02)23261600. **In Japan**, Professional Investors only (Professional Investor is defined in Financial Instruments and Exchange Act). Issued by BlackRock Japan Co., Ltd. (Financial Instruments Business Operator: The Kanto Regional Financial Bureau. License No375, Association Memberships: Japan Investment Advisers Association, the Investment Trusts Association, Japan, Japan Securities Dealers Association, Type II Financial Instruments Firms Association.) **In Australia**, issued by BlackRock Investment Management (Australia) Limited ABN 13 006 165 975, AFSL 230 523 (BIMAL). This material provides general information only and does not take into account your individual objectives, financial situation, needs or circumstances. Before making any investment decision, you should assess whether the material is appropriate for you and obtain financial advice tailored to you having regard to your individual objectives, financial situation, needs and circumstances. **In China**, this may not be distributed to individuals resident in the People's Republic of China ("PRC", for such purposes, excluding Hong Kong, Macau and Taiwan) or entities registered in the PRC unless such parties have received all the required PRC government approvals to participate in any investment or receive any investment advisory or investment management services. **For Other APAC Countries**, Institutional Investors only (or professional/sophisticated /qualified investors, as such term may apply in local jurisdictions) and does not constitute investment advice or an offer or solicitation to purchase or sell in any securities, BlackRock funds or any investment strategy nor shall any securities be offered or sold to any person in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities laws of such jurisdiction.

In Latin America, institutional investors and financial intermediaries only . This material is for educational purposes only and does not constitute investment advice nor an offer or solicitation to sell or a solicitation of an offer to buy any shares of any Fund (nor shall any such shares be offered or sold to any person) in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. If any funds are mentioned or referred to in this material, it is possible that some or all of the funds may not have been registered with the securities regulator of Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru, Uruguay or any other securities regulator in any Latin American country and thus might not be publicly offered within any such country. The securities regulators of such countries have not confirmed the accuracy of any information contained herein. In Argentina, only for use with Qualified Investors under the definition as set by the Comisión Nacional de Valores (CNV). In Brazil, this private offer does not constitute a public offer, and is not registered with the Brazilian Securities and Exchange Commission, for use only with professional investors as such term is defined by the Comissão de Valores Mobiliários. In Colombia, the sale of each fund discussed herein, if any, is addressed to less than one hundred specifically identified investors, and such fund may not be promoted or marketed in Colombia or to Colombian residents unless such promotion and marketing is made in compliance with Decree 2555 of 2010 and other applicable rules and regulations related to the promotion of foreign financial and/or securities related products or services in Colombia. In Chile, the sale of each fund not registered with the CMF is subject to General Rule No. 336 issued by the SVS (now the CMF). The subject matter of this sale may include securities not registered with the CMF; therefore, such securities are not subject to the supervision of the CMF. Since the securities are not registered in Chile, there is no obligation of the issuer to make publicly available information about the securities in Chile. The securities shall not be subject to public offering in Chile unless registered with the relevant registry of the CMF. In Peru, this private offer does not constitute a public offer, and is not registered with the Securities Market Public Registry of the Peruvian Securities Market Commission, for use only with institutional investors as such term is defined by the Superintendencia de Banca, Seguros y AFP. In Uruguay, the Securities are not and will not be registered with the Central Bank of Uruguay. The Securities are not and will not be offered publicly in or from Uruguay and are not and will not be traded on any Uruguayan stock exchange. This offer has not been and will not be announced to the public and offering materials will not be made available to the general public except in circumstances which do not constitute a public offering of securities in Uruguay, in compliance with the requirements of the Uruguayan Securities Market Law (Law N° 18.627 and Decree 322/011).

For investors in Central America, these securities have not been registered before the Securities Superintendence of the Republic of Panama, nor did the offer, sale or their trading procedures. The registration exemption has made according to numeral 3 of Article 129 of the Consolidated Text containing of the Decree-Law No. 1 of July 8, 1999 (institutional investors). Consequently, the tax treatment set forth in Articles 334 to 336 of the Unified Text containing Decree-Law No. 1 of July 8, 1999, does not apply to them. These securities are not under the supervision of the Securities Superintendence of the Republic of Panama. The information contained herein does not describe any product that is supervised or regulated by the National Banking and Insurance Commission (CNBS) in Honduras. Therefore any investment described herein is done at the investor's own risk. This is an individual and private offer which is made in Costa Rica upon reliance on an exemption from registration before the General Superintendence of Securities ("SUGEVAL"), pursuant to articles 7 and 8 of the Regulations on the Public Offering of Securities ("Reglamento sobre Oferta Pública de Valores"). This information is confidential, and is not to be reproduced or distributed to third parties as this is NOT a public offering of securities in Costa Rica. The product being offered is not intended for the Costa Rican public or market and neither is registered or will be registered before the SUGEVAL, nor can be traded in the secondary market. If any recipient of this documentation receives this document in El Salvador, such recipient acknowledges that the same has been delivered upon his request and instructions, and on a private placement basis.

IN MEXICO, FOR INSTITUTIONAL AND QUALIFIED INVESTORS USE ONLY. INVESTING INVOLVES RISK, INCLUDING POSSIBLE LOSS OF PRINCIPAL. THIS MATERIAL IS PROVIDED FOR EDUCATIONAL AND INFORMATIONAL PURPOSES ONLY AND DOES NOT CONSTITUTE AN OFFER OR SOLICITATION TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SHARES OF ANY FUND OR SECURITY.

This information does not consider the investment objectives, risk tolerance or the financial circumstances of any specific investor. This information does not replace the obligation of financial advisor to apply his/her best judgment in making investment decisions or investment recommendations. It is your responsibility to inform yourself of, and to observe, all applicable laws and regulations of Mexico. If any funds, securities or investment strategies are mentioned or inferred in this material, such funds, securities or strategies have not been registered with the Mexican National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores, the "CNBV") and thus, may not be publicly offered in Mexico. The CNBV has not confirmed the accuracy of any information contained herein. The provision of investment management and investment advisory services ("Investment Services") is a regulated activity in Mexico, subject to strict rules, and performed under the supervision of the CNBV. These materials are shared for information purposes only, do not constitute investment advice, and are being shared in the understanding that the addressee is an Institutional or Qualified investor as defined under Mexican Securities (*Ley del Mercado de Valores*). Each potential investor shall make its own investment decision based on their own analysis of the available information.

Please note that by receiving these materials, it shall be construed as a representation by the receiver that it is an Institutional or Qualified investor as defined under Mexican law. BlackRock México Operadora, S.A. de C.V., Sociedad Operadora de Fondos de Inversión ("BlackRock México Operadora") is a Mexican subsidiary of BlackRock, Inc., authorized by the CNBV as a Mutual Fund Manager (Operadora de Fondos), and as such, authorized to manage Mexican mutual funds, ETFs and provide Investment Advisory Services. For more information on the Investment Services offered by BlackRock Mexico, please review our Investment Services Guide available in www.blackrock.com/mx. This material represents an assessment at a specific time and its information should not be relied upon by the you as research or investment advice regarding the funds, any security or investment strategy in particular. Reliance upon information in this material is at your sole discretion. BlackRock México is not authorized to receive deposits, carry out intermediation activities, or act as a broker dealer, or bank in Mexico. For more information on BlackRock México, please visit: www.blackRock.com/mx.

BlackRock receives revenue in the form of advisory fees for our advisory services and management fees for our mutual funds, exchange traded funds and collective investment trusts. Any modification, change, distribution or inadequate use of information of this document is not responsibility of BlackRock or any of its affiliates.

Pursuant to the Mexican Data Privacy Law (Ley Federal de Protección de Datos Personales en Posesión de Particulares), to register your personal data you must confirm that you have read and understood the Privacy Notice of BlackRock México Operadora. For the full disclosure, please visit www.blackRock.com/mx and accept that your personal information will be managed according with the terms and conditions set forth therein. BlackRock® is a registered trademark of BlackRock, Inc. All other trademarks are the property of their respective owners.

©2021 BlackRock, Inc. All rights reserved. **ALADDIN**, **ISHARES** and **BLACKROCK** are trademarks of BlackRock, Inc., or its subsidiaries in the United States and elsewhere. All other marks are the property of their respective owners.