

# Fixed Income ETF Mechanics:

## Understanding the Processes of Creation, Redemption and Basketing

### SPDR Capital Markets Team

As fixed income ETFs become more widely adopted globally, it becomes critical for all investors to understand the underlying mechanics of these investment vehicles. In this article, we provide a brief, technical guide to ETF creation and redemption and the related basketing process commonly used for fixed income ETFs.

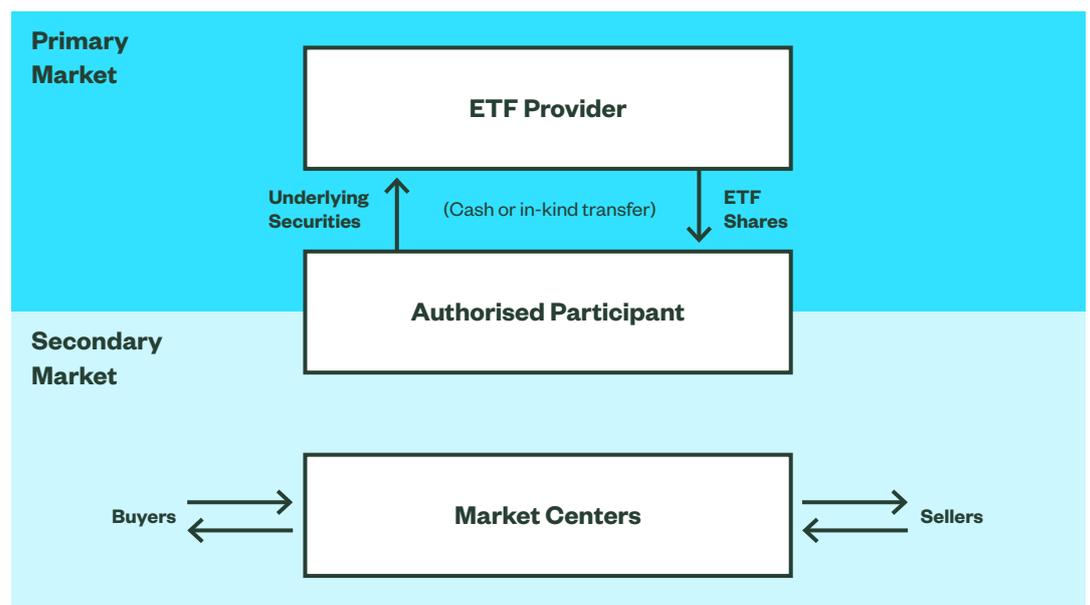
### Overview of ETF Creation and Redemption

One of the key features of exchange-traded funds (ETFs) is the ability to create and redeem blocks of ETF shares through the ETF primary market.

While most investors trade ETF shares in the secondary market, large institutional traders authorised by the fund are allowed to transact directly with the fund in the primary market.

ETF shares are created when an authorised participant (AP) delivers securities or cash to the fund sponsor in exchange for equally valued ETF shares. ETF shares are redeemed when an AP delivers ETF shares to the fund sponsor in exchange for securities or cash. Due to creations and redemptions, an ETF's assets and number of shares outstanding can change at end-of-day.

Figure 1  
How ETF Shares  
are Created  
and Redeemed



Source: State Street Global Advisors. The above diagram is for illustrative purposes only.

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The ability of APs to create and redeem an ETF's shares helps balance supply and demand for the ETF shares in the secondary market, which helps keep the price of the ETF shares tied to their intrinsic value.

APs can place orders to create or redeem ETF shares on their own behalf, or on behalf of other market participants, such as other broker-dealers holding inventory.

Depending on the ETFs, creations and redemptions can be done in cash or in kind.

To facilitate creation/redemption orders, each day the ETF issuer publishes a "basket" — a list of securities that can be accepted or delivered for creation/redemption orders. The basket represents a slice of the overall fund (and its index for index-tracking vehicles) in a representative manner.

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## A Look at Basket Mechanisms

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**Standard Baskets** Depending on the liquidity characteristics of individual underlying securities, it may be possible to use standard baskets that do not need any customisation. For example, for a fully replicated ETF on a narrowly defined universe (such as 1–3 year US Treasury or T-Bills 1–3 month), standard baskets tend to be used.

Where underlying securities can be sourced easily, standard baskets tend to be used.

In some cases, ETFs use custom creation/redemption baskets ("custom baskets"), which provide the portfolio managers with a level of flexibility anchored within the investment process of the fund.

**Custom Baskets** ETF sponsors often use custom baskets with fixed income ETFs, because they can allow an ETF to meet its investment objective more efficiently and to facilitate a more cost-effective creation and redemption process, which in turn makes arbitrage more efficient. These efficiencies may be passed on to investors in the form of narrower bid-ask spreads and smaller premiums/discounts relative to fixed income ETFs without basket flexibility.<sup>1</sup>

Custom baskets can be beneficial for the ETF, AP and investor, for the following reasons:

1. ETFs can pick from an AP's inventory to better align the fund overweights/underweights to the index, benefitting from the liquidity provided directly by the AP rather than sourcing liquidity elsewhere.
2. APs can turn over their bond inventories and reduce the amount of bond buying from other dealers, which would incur transaction costs ultimately passed on to investors in the form of wider bid-ask spreads and/or higher creation and redemption costs.
3. Investors can trade at tighter bid-ask spreads when APs can use inventory, as transaction costs incurred by the AP are reduced.

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## ETF Holdings vs. Index Constituents vs. Creation/Redemption Baskets

A bond ETF may not hold every bond in an index, given the sheer number of bonds in the index (an ETF tracking the US corporate investment grade universe, which contains up to 6,000 index constituents, may not hold all the securities in the index). Portfolio managers attempt to replicate the risk characteristics of an index through stratified sampling, rather than by holding every security. This means replicating the currency, duration, yield curve, and issuer credit exposure of the index.

Stratified sampling is an efficient technique for constructing portfolios, as many broad-based fixed income indices include a large number of securities, but not all of those securities can be sourced. Coupled with potentially high transaction costs to access illiquid bonds, full replication is not always possible or desirable in meeting the investment objective of the fund, which is to track the performance of the index. With a sampling approach, a portfolio manager can seek to build a portfolio with the same characteristics as the index.

In terms of creation/redemption baskets, for most fixed income ETFs, a fully replicated slice is impossible and/or impractical given the breadth of index constituents and market dynamics with respect to the ability to source fixed income securities and price transparency. Hence, the most prevalent form of basketing for SPDR fixed income ETFs occurs via custom negotiated baskets, which comprise a subset of an ETF's holdings that is constructed by the portfolio management team in a manner consistent with the stratified sampling security selection process used for managing fixed income index portfolios.

Custom baskets may be derived from either a universe of eligible securities made available to all APs by the portfolio management team, or from security inventory lists that are submitted by APs to the portfolio management team for analysis. A creation/redemption order will not be accepted until the custom basket constituents are reviewed and approved by the portfolio management team. All such determinations are made based on the best interests of the particular fund and its shareholders.

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## Learn More

To learn more about investing in fixed income ETFs, please visit our [How to Trade webpage](#) or contact our Capital Markets team at [GlobalSPDRCapitalMarkets@ssga.com](mailto:GlobalSPDRCapitalMarkets@ssga.com).

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Across regions and sectors, we bring a unique combination of market knowledge, product expertise and scale to our SPDR ETF fixed income range. As the creator of the first US-listed ETF, we have more than 25 years of experience helping investors build strong, flexible portfolios.

**\$547 billion in fixed income assets<sup>2</sup>**

**140+ dedicated fixed income professionals**

**24 years of fixed income indexing experience**

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## Endnotes

- 1 For more discussion on the benefits of basket flexibility, see: ICI comment letter on proposed rule 6c-11, pp. 35–57. Available at: <https://sec.gov/comments/s7-15-18/s71518-4403410-175592.pdf>.
- 2 Source: State Street Global Advisors, as of 31 December 2020.

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ID429344-3498140.11.GBL.RTL 0321  
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