

# An In-Depth Look at Defined Maturity ETFs

## A Whole New Range of Opportunities for Investors

As the ETF market has evolved, so too has the depth and breadth of available products.

Defined maturity exchange-traded funds (ETFs), a structural innovation in the rapidly growing ETF market, have created a wide range of new opportunities for fixed income investors. Defined maturity ETFs provide sectorspecific exposure to fixed income markets, including segments of the market previously only accessible to institutional investors.

Investors seeking diversified bond exposure were once limited to purchasing shares of bond mutual funds or purchasing several different individual bonds. While both of these options offer certain benefits, they can also present challenges for investors, including limited trading flexibility and transparency of holdings as well as potentially higher costs.

1 Diversification does not guarantee a profit or eliminate the risk of loss.

2 ETFs disclose their full portfolio holdings daily.

3 Invesco does not offer tax advice. Please consult your tax adviser for information regarding your own personal tax situation.

4 Since ordinary brokerage commissions apply for each buy and sell transaction, frequent trading activity may increase the cost of ETFs.

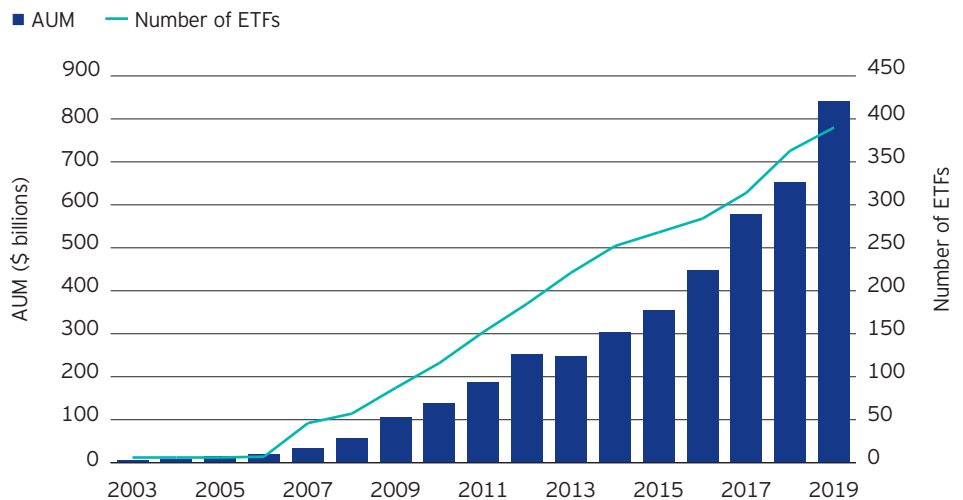


## Advantages of Fixed Income ETFs

Fixed income ETFs offer a welcome alternative because, like mutual funds, the ETFs may offer diversified exposure<sup>1</sup> to a basket of bonds in a single transaction, but unlike mutual funds, ETFs trade on major stock exchanges, affording the added benefits of intra-day pricing and trading flexibility. They also offer greater transparency<sup>2</sup> of holdings, potential tax efficiencies<sup>3</sup>, and generally lower expenses<sup>4</sup> than both mutual funds and individual bonds.

For these reasons, fixed income ETFs have become the investment vehicle of choice for many investors. Despite their popularity, however, fixed income ETFs have traditionally not allowed investors to construct laddered portfolios or target specific bond maturities. That changed with the advent of defined maturity ETFs.

## Asset Growth of US Listed Fixed Income ETFs



Source: Morningstar, Inc. as of Dec. 31, 2019.

# Defined Maturity ETFs: A New Era in Fixed Income Investing

Defined maturity ETFs, introduced in early 2010, possess all of the features of traditional fixed income ETFs with one distinct difference: a specified maturity date. Each defined maturity ETF is structured to track an index comprising bonds that all mature in a particular year. During that year, the ETF and its underlying index terminate and the ETF's net assets are distributed to shareholders.

In other words, defined maturity ETFs have an investment and cash-flow profile similar to bonds while offering all the advantages inherent in an ETF. Defined maturity ETFs also offer a level of liquidity, price transparency and trading flexibility typically not available in the over-the-counter (OTC) market in which bonds trade – enabling investors to implement strategies they may not otherwise be able to. Defined maturity ETFs may be a compelling complement to other fixed income products as well.

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## Key features of defined maturity ETFs

Feature	Description
<b>Pre-defined maturity date</b>	Defined maturity ETFs provide exposure to a particular year of maturity – just as individual bonds do – when proceeds are distributed to shareholders. <sup>5</sup> Thus, defined maturity ETFs enable investors to create customized portfolios that address projected cash flow needs and precisely manage interest rate exposure. By contrast, open-end funds (e.g., traditional mutual funds) offer limited flexibility to match interest rate exposure and future cash flow needs.
<b>Diversification</b>	Defined maturity ETFs typically offer exposure to a wide variety of individual bonds from multiple issuers, reducing issuer concentration risk and potentially lowering portfolio volatility. Of course, low volatility cannot be guaranteed. While most traditional bond funds offer similar exposure, replicating this level of diversification in the OTC bond market is considerably more difficult and costly, as the minimum investment required to purchase a single bond is often \$10,000. Diversification does not guarantee a profit or eliminate the risk of loss.
<b>Exchange traded liquidity and transparency</b>	ETFs offer daily holdings disclosure as well as the real-time pricing, intra-day trading, and liquidity that come with exchange listing. By contrast, mutual fund shares are priced once daily and holdings are usually disclosed quarterly. In addition, defined maturity ETFs generally have tight bid/ask spreads, especially in comparison to those of the OTC bond market – whereas the OTC bond market can be non-transparent and thinly traded.
<b>Lower costs</b>	Expense ratios for defined maturity ETFs are comparable to other ETFs and are generally lower than those of actively managed mutual funds. Transaction costs for defined maturity ETFs are reduced because the bonds in the portfolios are held until maturity (unless called or defaulted). Additionally, because of the way ETFs are structured and their unique in-kind share creation/redemption process, the funds generally do not incur the trading costs associated with mutual funds.

<sup>5</sup> These ETFs do not seek to return any predetermined amount at maturity, and the amount an investor receives may be worth more or less than their original investment. In contrast, when an individual bond matures, an investor typically receives the bond's par (or face value).

**Tax efficiencies**

Defined maturity ETFs are potentially more tax efficient than bond mutual funds. Mutual funds often have to sell bonds in order to meet redemptions, particularly in a declining market. And as bonds in a mutual fund portfolio approach maturity – falling below the fund's target threshold – those bonds have to be sold and new bonds purchased. These pressures may increase turnover in a mutual fund portfolio, creating tax consequences for those who continue to hold shares of the fund. Defined maturity ETFs, on the other hand, do not sell securities to meet redemptions and unless the bonds in the fund's portfolio are called, the securities are generally held until they mature. As a result, the funds typically generate comparably few taxable events. (It should be noted, however, that a defined maturity ETF's final distribution is considered a sale for tax purposes and therefore, depending upon the purchase price and holding period, investors may incur a capital gain or loss.) Invesco does not offer tax advice. Please consult your tax adviser for information regarding your own personal tax situation.

**Monthly income**

Defined maturity ETFs seek to pay a monthly income distribution, as do mutual funds, whereas bonds typically pay semiannually. An ETF's more frequent distributions, if any, may be an attractive feature for investors looking to supplement their income.

The first fixed income ETFs were introduced in 2002, roughly 10 years after the advent of the ETF market itself. Although equity ETFs still represent a larger percentage of the total ETF market, fixed income ETFs are rapidly gaining market share. The total amount of assets in US-listed fixed income ETFs has grown from approximately \$57 billion on December 31, 2008, to more than \$842 billion as of December 31, 2019. Today, there are approximately 390 fixed income ETFs listed in the US, offering exposure to virtually every sector of the market.<sup>6</sup> The vast majority of these funds are index-based in that they seek to replicate the performance of a particular benchmark index (before fund fees and expenses).

<sup>6</sup> Source: Morningstar, Inc., as of Dec. 31, 2019.

Investors should be aware of the material differences between investments. ETFs generally have lower expenses than actively managed mutual funds due to their different management styles. Most ETFs are passively managed and are structured to track an index, whereas many mutual funds are actively managed and thus have higher management fees. Unlike ETFs, actively managed mutual funds have the ability to react to market changes and the potential to outperform a stated benchmark. Since ordinary brokerage commissions apply for each ETF buy and sell transaction, frequent trading activity may increase the cost of ETFs. ETFs can be traded throughout the day, whereas, mutual funds are traded only once a day. While extreme market conditions could result in illiquidity for ETFs. Typically they are still more liquid than most traditional mutual funds because they trade on exchanges. Bonds generally present less short-term risk and volatility than stocks, the bond market is volatile and investing in bonds involves interest rate risk; as interest rates rise, bond prices usually fall, and vice versa. Bonds also entail issuer and counterparty credit risk, and the risk of default. Additionally, bonds generally involve greater inflation risk than stocks. Unlike individual bonds, bond funds have fees and expenses and most bond funds do not have a maturity date, so holding them until maturity to avoid losses caused by price volatility is not possible. Investors should talk with their advisers regarding their situation before investing.

# Understanding Fund Distributions

Defined maturity ETFs are designed to provide a yield-to-maturity (YTM) comparable to what an investor would realize if they were to invest in the fund's underlying bond portfolio. Unlike bonds however, which have a fixed coupon payment and return par (or face value) at maturity, defined maturity ETF monthly distributions and final payouts may fluctuate. Nonetheless, investors can still determine with a fair amount of accuracy what their

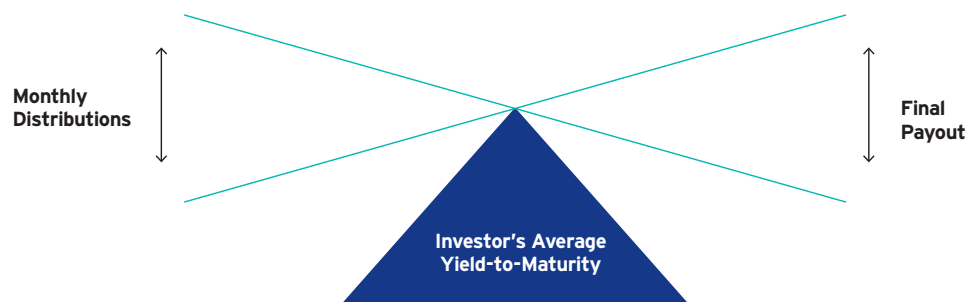
YTM may be because these fluctuations in income distributions are generally offset by a corresponding change in the final payout at fund maturity. This is due to the way in which ETFs are structured and the unique share creation and redemption process.

## The In-Kind Share Creation/Redemption Process

ETFs continuously offer and redeem shares through an in-kind share creation/redemption process: Shares of an ETF are created when an Authorized Participant or "AP" (typically a large investment firm) delivers to the ETF a basket of securities representative of the underlying portfolio, and the AP receives ETF shares in return. When redeeming shares, the opposite occurs: the AP delivers ETF shares and receives a basket of underlying securities in return, which are then sold on the open market at prevailing prices (APs are the only entities that can transact directly with the ETF).

The AP creates and redeems shares as necessary to meet the supply and demand needs of the marketplace as investors buy and sell shares on public exchanges, which in turn helps to keep an ETF's market price relatively in line with its net asset value. The creation/redemption process also serves to minimize transaction costs incurred by the ETF and to reduce the potential for capital gains transactions that result from cash inflows and outflows.

### Dynamics of defined maturity ETF distribution



For illustrative purposes only.

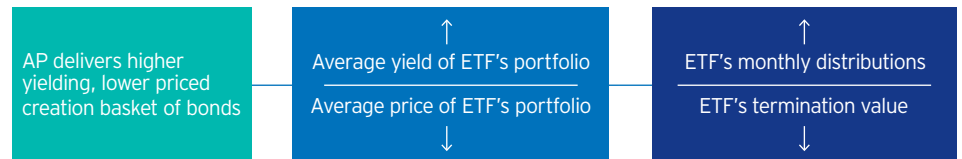
Shares are not individually redeemable and owners of the shares may acquire those shares from the fund and tender those shares for redemption to the fund in creation unit aggregations only, typically consisting of 100,000 or 150,000 shares.

## The Role of Interest Rates in Defined Maturity ETFs

Share creation and redemption, coupled with changing market interest rates, may cause an ETF's income accrual rate to fluctuate, owing to the inverse relationship between bond prices and yields. For example, if market yields rise, an AP creating shares of the ETF typically delivers higher-yielding bonds into the portfolio, which serves to increase the portfolio's yield and therefore, its distributions to shareholders. However, because of the inverse relationship between bond prices and yields, the higher-yielding bonds delivered into the portfolio will have declined in price, reducing the average price of the portfolio and therefore, its termination value.

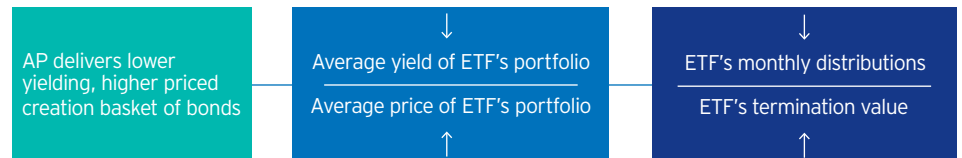
In other words, the ETF's distributions and final payout dynamically adjust in accordance with changing market yields – generally they offset each other such that an investor's anticipated YTM will likely remain relatively constant. Distributions will also likely change as the ETF approaches its termination date: As the ETF nears its termination and bonds in the portfolio mature, the proceeds are generally reinvested in cash or other liquid shortterm securities until the ETF terminates and the proceeds are distributed to shareholders.

### Share creation in a rising-rate environment



The opposite is true in a falling-rate environment: APs typically deliver lower-yielding/higher priced bonds into the ETF's portfolio, reducing the portfolio's average yield but increasing its termination value.

### Share creation in a falling-rate environment



For illustrative purposes only.

# Portfolio Applications

Defined maturity ETFs can be a powerful tool for implementing a variety of strategies previously only afforded through buying individual bonds.

## **Obtain targeted yield-curve exposure:**

For investors seeking to capture perceived opportunities at particular points on the yield curve, defined maturity ETFs offer an effective means of obtaining precise, targeted exposure. Investors can also easily barbell their yield curve exposure by simultaneously overweighting and underweighting particular maturity years.

## **Manage future cash flow needs:**

In addition to providing supplemental monthly income, defined maturity ETFs may provide a source of cash that can be allocated to large future expenses as the ETFs allow investors to match maturities with expected liabilities. For example, an investor facing future college expenses can select ETFs whose terminations align with the years those expenses will be incurred.

## **Build and manage laddered portfolios:**

ETFs can play many roles in an investor's toolkit – from replacing gaps created by maturing or called bonds, to managing cash flow needs, to customizing a portfolio's duration profile. But in today's uncertain market, target defined maturity ETFs' most compelling application may be laddering, as ETFs offer new choices to financial advisors and their clients. Laddering with defined maturity ETFs provides a level of efficiency, cost effectiveness<sup>4</sup>, and flexibility that was largely unavailable through wrappers<sup>7</sup> and individual bonds.

To help manage interest rate risk, fixed income investors frequently construct laddered bond portfolios – i.e., portfolios of individual bonds that have varying terms to maturity. As shorter-dated bonds mature, the proceeds are rolled over and invested into bonds with longer-dated maturities. Investing across a range of maturities prevents investors from having to make a specific call on the yield curve, as this happens automatically in conjunction with the maturity of the portfolio.

Yet, creating ladders with individual bonds can present a number of challenges, including limited bond availability, liquidity and cost constraints, concentrated bond exposure, and credit research on individual companies and securities. The availability of individual bonds with the investor's target maturities can be lacking. There may be liquidity constraints and limited trading flexibility with individual bonds. Finally, cost can be an issue as individual bonds may have high minimum purchases of \$10,000 or more.

Defined maturity ETFs offer a convenient and cost-effective<sup>4</sup> approach to building laddered portfolios, or filling gaps in an existing laddered portfolio resulting from matured, called, or defaulted bonds. Laddered ETF portfolios can be used as an inflation protection strategy or for meeting a wide variety of income and lifestyle needs (e.g., funding college tuition at specific due dates or reaching a certain retirement date). Defined maturity ETFs also enable investors to create customized duration strategies adapted to their changing needs.

And over time, products that support laddering give investors the potential to benefit from "rolling down the yield curve" and taking advantage of both income and price changes. An example of the laddering products is BulletShares ETFs. This is a preferred strategy when the yield curve is upward sloping or steep. Under this scenario, an investor would purchase a bond at the top of the steepest part of the yield curve and holds the bond long enough until it reaches a lower yielding part of the curve. The objective is to benefit from built-in appreciation that occurs as a normally higher interest rate bond becomes a valuable shorter-term bond.

<sup>7</sup> Wrappers, or wrap accounts, are used by a brokerage firm to manage an investor's portfolio for an annual fee. A traditional wrap account offers investors access to professional money managers; mutual fund companies also offer wrap accounts as a vehicle to access dozens of mutual fund choices.

# Defined Maturity ETFs: A Versatile, Innovative Fixed Income Solution

For fixed income investors, defined maturity ETFs offer a range of potential benefits, including flexibility, transparency<sup>2</sup>, diversification<sup>1</sup>, and liquidity. More importantly, these innovative vehicles allow investors and their advisors to implement a range of fixed income portfolio strategies that until now may have been too complex and costly. Whether investors are seeking to generate current income, reduce interest rate risk, manage cash flow needs, or meet a range of other objectives, defined maturity fixed income ETFs may offer a low-cost solution.

As with any ETF, defined maturity ETFs may be sold prior to their maturity date at the then-current market price (less any brokerage and transaction fees that may apply) and the amount an investor

receives at the time of sale or maturity may be more or less than their original investment. If the amount an investor receives as liquidation proceeds upon the ETF's termination is higher or lower than their cost basis, a taxable gain or loss may occur.

Defined maturity ETFs, like any fixed income investment, are subject to interest rate risk and, depending upon the ETF's underlying investments, credit risk as well. In addition, because the distributions generated by the funds are less predictable than those generated by bonds, the ETFs may not be appropriate for investors requiring a fixed stream of income. Investors should consult with their financial advisor to help determine whether defined maturity ETFs are appropriate for their portfolio.

**Duration** is a measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates. Duration is expressed as a number of years. **Yield-to-maturity (YTM)** is the total return anticipated on a bond if the bond is held until it matures.

There are risks involved with investing in ETFs, including possible loss of money. Shares are not actively managed and are subject to risks similar to those of stocks, including those regarding short selling and margin maintenance requirements. Ordinary brokerage commissions apply. The funds' return may not match the return of the underlying index. The funds are subject to certain other risks. Please see the current prospectus for more information regarding the risk associated with an investment in the funds.

Investments focused in a particular sector are subject to greater risk, and are more greatly impacted by market volatility, than more diversified investments.

Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa.

During the final year of the funds' operations, as the bonds mature and the portfolio transitions to cash and cash equivalents, the funds' yield will generally tend to move toward the yield of cash and cash equivalents and thus may be lower than the yields of the bonds previously held by the funds and/or bonds in the market.

An issuer may be unable or unwilling to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating.

Income generated from the funds is based primarily on prevailing interest rates, which can vary widely over the short- and long-term. If interest rates drop, the funds' income may drop as well. During periods of rising interest rates, an issuer may exercise its right to pay principal on an obligation later than expected, resulting in a decrease in the value of the obligation and in a decline in the funds' income.

An issuer's ability to prepay principal prior to maturity can limit the funds' potential gains. Prepayments may require the funds to replace the loan or debt security with a lower yielding security, adversely affecting the funds' yield.

Unlike a direct investment in bonds, the funds' income distributions will vary over time and the breakdown of returns between fund distributions and liquidation proceeds are not predictable at the time of investment. For example, at times the funds may make distributions at a greater (or lesser) rate than the coupon payments received, which will result in the funds returning a lesser (or greater) amount on liquidation than would otherwise be the case. The rate of fund distribution payments may affect the tax characterization of returns, and the amount received as liquidation proceeds upon fund termination may result in a gain or loss for tax purposes.

The values of junk bonds fluctuate more than those of high quality bonds and can decline significantly over short time periods.

## About Invesco

Invesco offers investors a broad range of ETFs – domestic and international equity, fixed income, and currency – to provide the core building blocks for portfolios, access to hard-to-reach market segments, as well as targeted investment choices. With a history of purposeful innovation, including many industry “firsts,” Invesco delivers what we believe are distinct and relevant

strategies for institutional investors, private wealth advisors, and the clients they serve.

To learn more about defined-maturity ETFs and how they may help optimize your portfolio's performance, talk with your advisor or visit [bulletshares.com](http://bulletshares.com).

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***Before investing, investors should carefully read the prospectus/summary prospectus and carefully consider the investment objectives, risks, charges and expenses. For this and more complete information about the fund call 800.983.0903 or visit [powershares.com](http://powershares.com) for the prospectus/summary prospectus.***

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