

Fixed income ETFs: Fact vs. fiction

Are fixed income ETFs:

1

Distorting the market?

2

Difficult to sell in
volatile markets?

3

Causing investors to be
overweight to the most
indebted companies?

4

More likely to underperform
active managers in
volatile markets?

5

Useful only when tracking
the broadest, simplest
bond indices?

6

Fundamentally inefficient
because bond indices have
too many constituents?

7

Difficult for investors to
trade and accurately price?

8

Exaggerating declines in
the bond market?

Contents

- 04** **Fiction 1:** The fixed income ETF market has become so large that it distorts the bond market.
- 07** **Fiction 2:** Fixed income ETFs are not sufficiently liquid, and investors can run into trouble when many try to redeem at the same time.
- 11** **Fiction 3:** When using a fixed income ETF, the investor is overweight the most indebted—and therefore the riskiest—companies.
- 14** **Fiction 4:** Fixed income ETFs underperform active managers when markets are volatile.
- 17** **Fiction 5:** It's easy to outperform many indexed fixed income ETFs because of their broad exposure.
- 20** **Fiction 6:** Index investing does not work for bonds because there are too many bonds to index efficiently.
- 23** **Fiction 7:** Many investors are not set up to trade fixed income ETFs—the process is difficult, and understanding ETF pricing and liquidity is challenging
- 25** **Fiction 8:** During the COVID-19 crisis, fixed income ETFs exaggerated the decline in the underlying bond market.

Fixed income ETF myths

Since the launch of the first fixed income ETF just over 20 years ago, the range and scale of tools on offer to investors has transformed fixed income investing.

In line with that growth, some misconceptions surrounding fixed income ETFs have arisen. In this paper we set out and stress test those myths. We examine fixed income ETF liquidity, market size, and indexed and active exposures. And we review the performance of fixed income ETFs even under unusual market conditions such as the COVID-19 crisis.

FICTION 1

The fixed income ETF market has become so large that it distorts the bond market.

FACT: RELATIVE MARKET SIZES

Despite their rapid growth, fixed income ETFs still only represent 3% of the total investable fixed income universe.

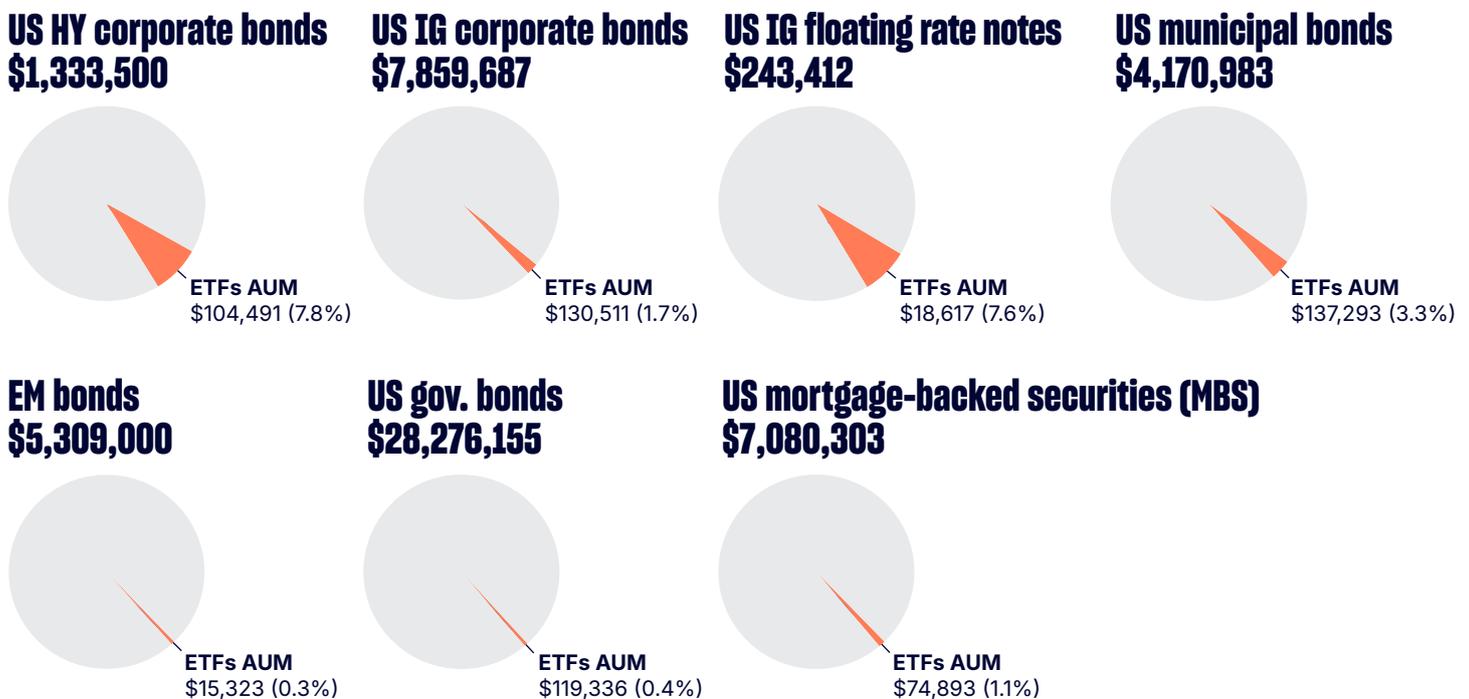
The fixed income ETF market is still relatively young—the first fixed income ETF launched was in 2002. Even at the end of 2010, assets under management in fixed income ETFs represented \$195 billion, which was 3.8% of the global fixed income fund industry, according to Morningstar. ETFs accounted for a mere 2.8% of the investable global fixed income universe as measured by the Bloomberg Multiverse Index, which includes investment grade (IG) and high yield (HY) bonds issued in developed and emerging market (EM) currencies.

Growth in AUM has accelerated since 2020 and at 31 December 2024, fixed income ETFs represented 19% of the global fund market with \$1.9 trillion in assets.

Growth of these instruments has been robust, but they still account for less than 3% of the total investable fixed income universe. Flows have been strong but they have not occurred solely at the expense of other types of existing investment vehicles. They have grown the overall market.

But these instruments still represent a small portion of sub-asset classes within the fixed income market far too small to distort market prices. Figure 1 illustrates how much ETFs represent of some underlying investment universes. Figure 2 shows how much they account for in terms of trading activity.

Figure 1: Relative sizes of ETF AUM vs. total market AUM in \$M USD



Market size data: SIFMA (as of 31/12/2024; High yield corporate bonds: 3cim, as of 31/12/24. US investment grade corporate bonds, US investment grade floating rate notes, US mortgage-backed securities: Bloomberg Financial, L.P., as of 31/12/2024. US municipal bonds: SIFMA, as of 30/09/24. U.S. government bonds: SIFMA, as of 31/12/.24. Emerging market bonds: JP Morgan and State Street Investment Management as of 30/12/24.

FACT: TRADING VOLUMES

In some fixed income segments, ETFs are becoming an important source of additive liquidity to their respective markets.

ETFs generally account for less than ten percent of assets in almost all segments of the broad USD fixed income universe; in many cases, however, these instruments represent a higher proportion of the traded volume.

Thus a fixed income ETF can be a source of additive liquidity to those markets. The stock exchange becomes the venue where a variety of investor types congregate to position their portfolios and express a fixed income beta exposure in either direction.

This two-way flow in shares of an ETF typically results in muted impact on the underlying market (for example, an ETF consisting high yield bonds may see only \$1 of net share creation or redemption for every \$9–10 of secondary trading value).

In high yield, ETF trading may have begun to supplant volumes in synthetic products such as total return swaps and credit derivative swap indices (CDX); investors often prefer the funded exposure due to its performance profile, which better matches the cash bond market and avoids the multiple basis risks that exist with a synthetic exposure.

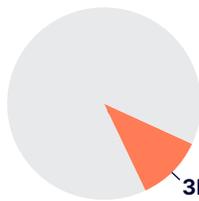
Figure 2: 3-month average daily volumes: bond trading vs. ETF trading in \$M USD

US HY corporate bonds
4,593,000



3M ADV: bond trading
3,797,000 (83%)

US IG corporate bonds
26,705,000



3M ADV: bond trading
2,818,000 (11%)

US IG floating rate notes
13,202,000



3M ADV: bond trading
1,077,000 (8%)

Source: 3M, as of 31/12/24.

FICTION 2

Fixed income ETFs are insufficiently liquid, which is problematic when investors try to redeem.

FACT

- a) A fixed income ETFs liquidity is at least as liquid as the underlying market that it tracks.
- b) ETFs can provide greater liquidity compared with index or actively managed mutual funds.

The unique structure of a fixed income ETF—which packages a diversified portfolio of bonds into a single, tradeable equity—provides two sources of liquidity for investors. Primary liquidity which can be accessed via an authorised participant and secondary liquidity, which can be accessed directly. These two sources define a fund’s overall liquidity profile.

Primary market: An ETF is a portfolio of individual securities—i.e. equities or bonds—that form a single fund. The shares of this fund are publicly listed and trade on an exchange (the secondary market). Normally, investors buy or sell ETF shares via the secondary market. However, if their buy or sell order is too large to trade on the exchange, an alternative approach could be for the investor to approach a market maker who in turn could trade via the primary market.

The size of the investor’s order and the trading volumes of the ETF will determine whether the secondary market can accommodate the trade. If the investor could only trade via the secondary market, a large order may take time to execute, meaning they would be exposed to market risk for an extended period.

To counter this potential problem, ETF issuers partner with a pool of authorised participants (APs) who, through managing the primary market, ensure that investors can buy or sell shares in the ETF in various market environments. These APs are also known as ‘market makers’: their role is typically carried out by investment banks or specialist trading firms. APs are

able to create new shares for the ETF in the case of a large buy order (‘creation’) and redeem existing shares in the case of a large sell order (‘redemption’). This intraday mechanism is called creation/redemption and means that ETFs are able to accommodate large buy or sell orders beyond the liquidity provided by the secondary market.

This creation/redemption mechanism facilitates instantaneous orders executed in size and at a price level that the underlying bond market supports. For example, if an AP has the ability to buy and sell \$1 billion worth of US Treasuries, that AP should be willing to make an equivalently sized market in a US Treasury ETF—even if the fund has a low average daily trading volume and small AUM. The liquidity of a fixed income ETF is therefore at least equal to the liquidity of the underlying bond market.

Secondary market: The secondary market is simply the exchange where ETFs are listed and traded. An ETF’s secondary market liquidity can be assessed by looking at its average daily trading volume and spread (i.e. the difference between the offer price and bid price, which are the prices at which investors can buy or sell the fund), as well as premiums and discounts to net asset value.

As outlined above, the full scale of an ETF’s liquidity can only be accurately measured when the primary market’s liquidity is also included.

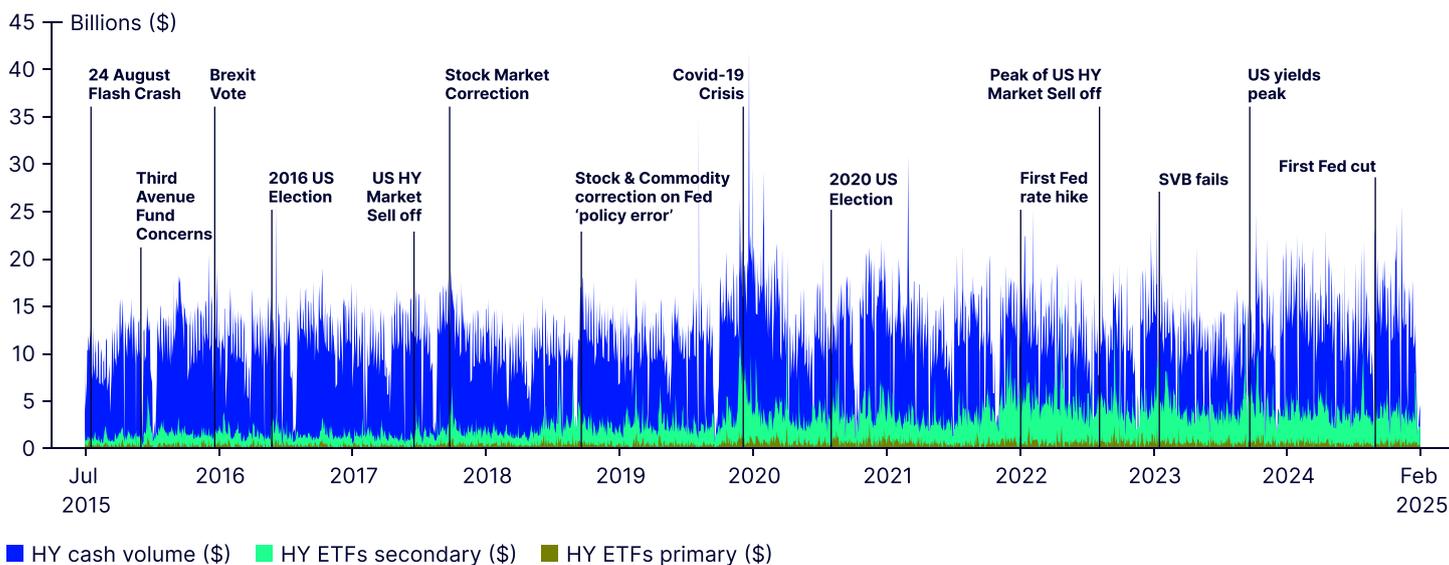
Case study—US high yield

US high yield liquidity is occasionally highlighted as a potential area of concern for ETFs in times of market stress. However, analysis of the market’s trading volume reveals that ETFs actually complement the broader market’s liquidity profile.

Historical high yield market trading volumes illustrate how both types of ETF liquidity—primary and secondary market volumes—compare to the broader high yield cash market (Figure 3).

This chart demonstrates how, in periods of market stress, ETF secondary trade volume tends to spike but the primary market volume remains relatively subdued in comparison. This suggests that, even in times of market stress, there is sufficient secondary market ETF liquidity for investors to trade without accessing the primary market and subsequently the broader market. It also highlights that, if investors tried to redeem at the same time, the primary ETF market could be used as a liquidity source, especially given the scale of trading volume in the US high yield cash market.

Figure 3: High yield volume vs. high yield ETF primary market activity



Source: Bloomberg Finance L.P., as of 28 February 2025.

How does the liquidity of a fixed income ETF compare to other approaches to bond investing?

The table below highlights some of the differences between trading ETFs, index funds, active managers and single securities. Fixed income ETFs are the only investment vehicle for the bond market that provides two layers of liquidity and offers transparent, diversified access with intraday pricing.

	Exchange traded fund		Index fund	Actively managed fund	Single bond
Trading venue	On exchange (secondary)	Primary market	Via fund provider, requiring written application	Via fund provider, requiring written application	Over the counter, voice or electronically enabled
How frequently can investors gain access?	Intraday		Typically close of business on trade date	Typically close of business on trade date	Intraday
Trade notification period	None		Typically 1 to 3 days	Typically 1 to 3 days	None
Minimum investment size	1 share		Fund's minimum investment size	Fund's minimum investment size	Bond's minimum price/minimum increment
Can investors see intraday pricing?	Yes		No	No	Yes
How concentrated is the portfolio?	Diversified		Diversified	Greater concentration	Single security

FICTION 3

**Fixed income ETFs
overweight investors
to the most indebted—
and therefore riskiest—
companies.**

FACT

#1 debt issuance is directly related to a company's financial strength.

#2 ETF index construction provides diversification benefits and constituent capping can limit concentration risks.

In addition to the broad diversification afforded by indices, large issuers of debt are also companies with substantial asset bases and revenue profiles. This provides the ability, or the capacity, to pay and service the debt on the firm's balance sheet. Focusing only on the amount of debt an issuer has in an index overlooks a few key variables.

Indices are rules based, focusing on diversification and liquidity for ensuring investability. As a result, not all of an issuer's debt is included in an index, which paints an incomplete picture of the firm's overall indebtedness. For instance, an issuer can have short-term liabilities that do not qualify it for inclusion in an index, or debt financing secured in subordinated form, or financing denominated in a different currency.

As shown in Figure 4, the ranking of the most indebted firms, based on the amount of debt included in the Bloomberg Euro Corporate Bond Index, is very different to the ranking of the firm's total short and long debt overall.

A high level of debt for an issuer has little to do with the company's capacity to pay or credit worthiness.

Firms with a larger debt load do not pose greater risk for investors than firms with smaller debt loads. If it were the case that large debt loads equated to greater credit risk, the corporate bond market would exhibit a linear relationship between credit ratings and debt outstanding. However, credit rating agencies consider numerous factors besides amount of debt, including capacity to service debt.

Figure 4: Top 10 holdings in the Bloomberg Euro corporate bond index

	Weight in index (%)	Rank by debt included in index	Rank by short-term and long-term debt	Market cap (EUR millions)	2024 revenue (EUR billions)
Volkswagen	1.68	1st	44	47,476.9	321.2
Banque Federative du Credit Mutuel	1.61	2nd	38	Mutual	40.2
BNP Paribas	1.54	3rd	24	6,693.9	48.8
Credit Agricole	1.50	4th	17	40,199.40	27.2
ING Groep	1.17	5th	40	Mutual	60.3
BPCE	1.17	6th	19	Mutual	43.6
Banco Santander	1.15	7th	22	67,579.10	62.2
UBS Group	1.08	8th	29	97,268.70	48.6
Societe Generale	1.03	9th	21	21632,9	26.8
Engie	0.96	10th	133	32,474.5	79.2

Source: Bloomberg Finance L.P., as of 31 December 2024. The information contained above is for illustrative purposes only. Weights are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Diversification does not ensure a profit or guarantee against loss.

FICTION 4

**Fixed income ETFs
underperform
active managers in
volatile markets.**

FACT

Index fixed income exposures would have outperformed the median fund return in six out of eight systemically important volatile markets over the last 20 years.¹

State Street Investment Management analysed eight significant market events over the past 20 years, representing periods of volatility or turbulence in the bond markets. These events included the Global Financial Crisis and the bout of market stress caused by the global COVID-19 pandemic, among others.

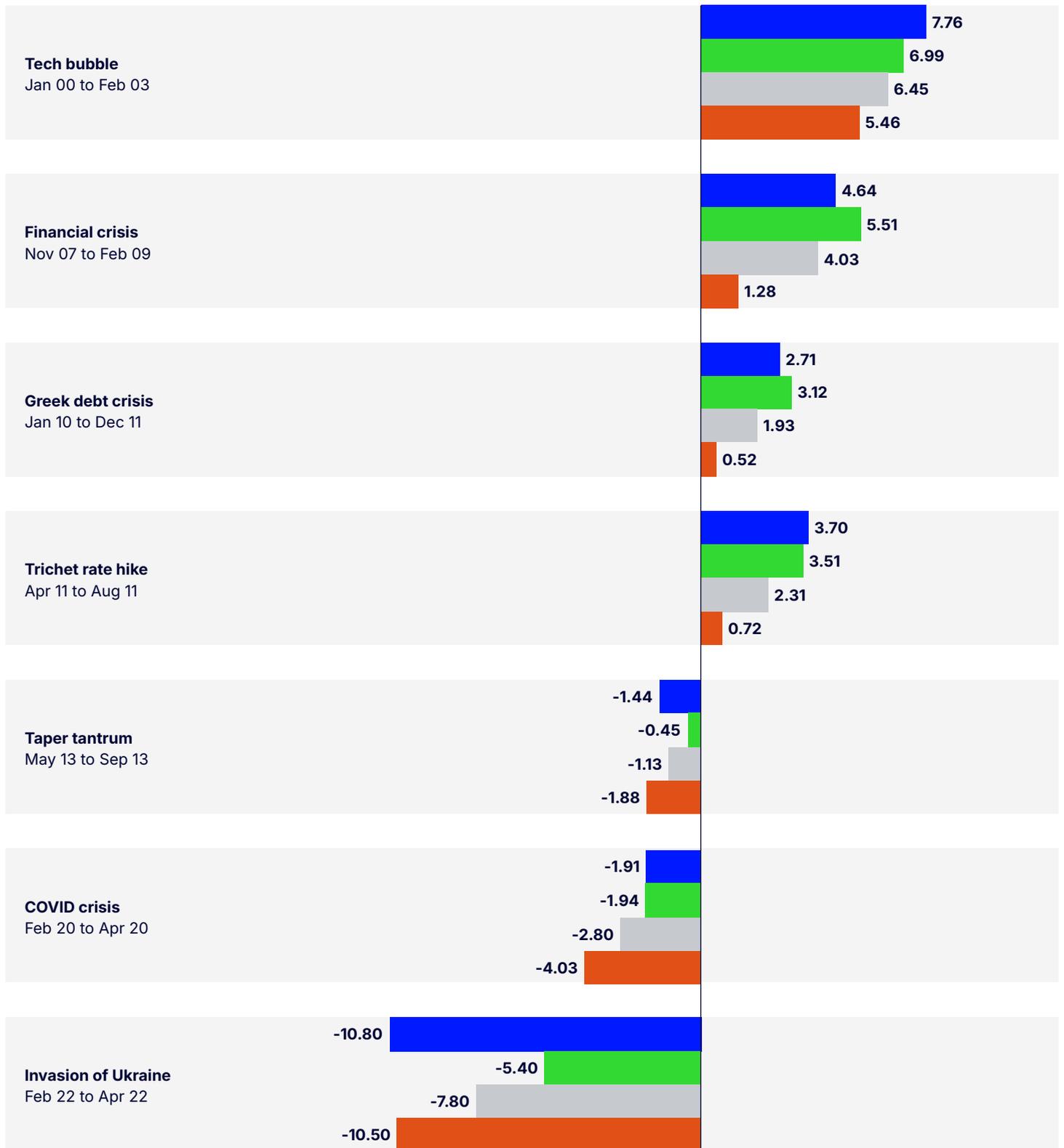
The analysis focused on the performance of active managers within the Bloomberg Euro Agg Bond Total Return Index (Agg). The findings contradict the fiction that fixed income index-based exposures underperform active strategies in environments where trading can get stressed.

Figure 5 shows how the Agg outperformed the median manager in all periods except for the 2013 Taper Tantrum and the 2022 Russian invasion of Ukraine. In fact, during three of the volatile events, including the COVID market turmoil, the index ranked in the top quartile. The belief that index-based exposures cannot withstand market volatility is clearly a misconception—the Agg outperformed more active managers than it underperformed.

So why have index-based strategies proven so resilient? During a downturn, spreads widen and default rates increase, while the flight to safety means that Treasuries are in demand. Unfortunately, any active manager with an overweight to credit, and therefore a higher credit beta, may be negatively impacted as credit spreads widen. Managers who outperform the benchmark during an upmarket tend to be unable to time a market downturn and reduce risk as all investors are leaving the party. These active managers' credit exposure hurts performance during risk-off environments. Another view is that active strategies tend to be more concentrated whereas indexing provides a broader exposure, which potentially lowers idiosyncratic risk during market volatility through diversification.

Lastly, this analysis does not preclude the implementation of both active and index exposures for efficient portfolio construction. Looking through a longer-term lens, there is clearly a place for both: index-based exposures can augment active exposures, thus benefiting long-term performance while lowering fees.

Figure 5: Performance during market turbulence: index vs. active managers



■ Bloomberg Euro Agg Bond Total Return

■ Manager Universe—Morningstar EUR Diversified Bond Category

■ Top Quartile ■ Median ■ Bottom Quartile

Source: Morningstar Direct, as of 31 December 2024. The information contained above is for illustrative purposes only. Past performance is not a guarantee of future results. Characteristics are as of the date indicated and are subject to change.

FICTION 5

**It's easy to outperform
many indexed fixed
income ETFs because of
their broad exposure.**

FACT

A high percentage of active managers of European debt have underperformed their benchmark.

The recent emergence of a wave of ETFs pursuing active strategies highlights the enduring demand for this approach. This is in part because any investment in an ETF wrapper generally has structural advantages over its mutual fund equivalent. But the active versus passive debate remains alive—fuelled by the disappointing relative performance of indexed funds in 2024.²

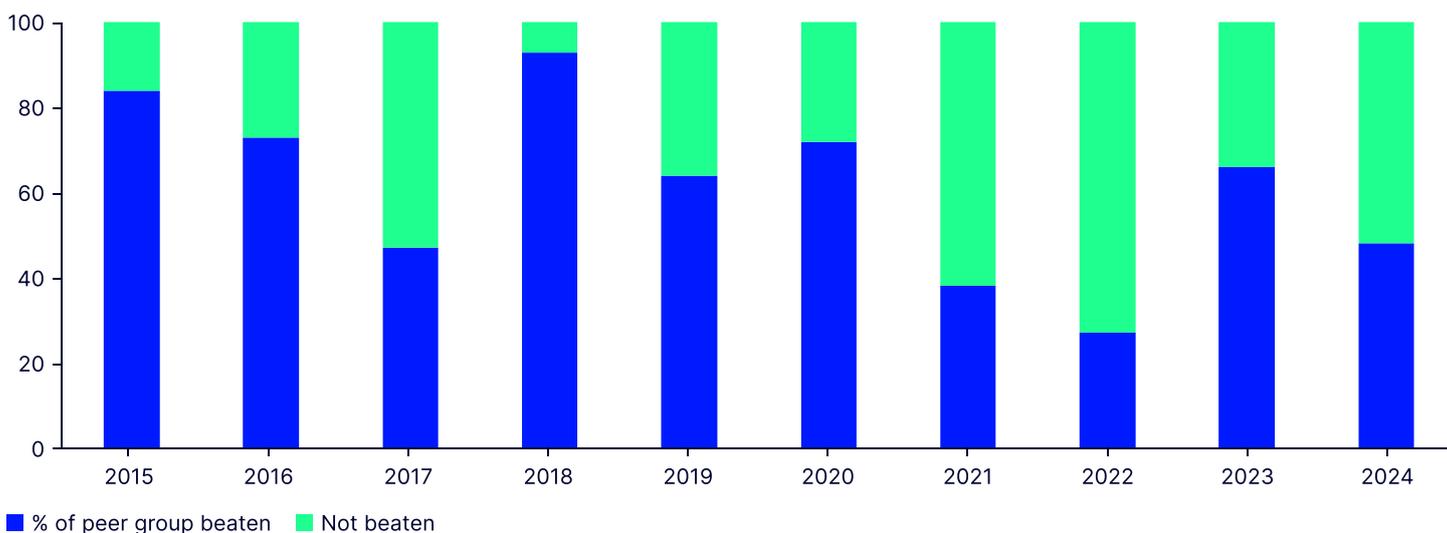
Bigger picture, there is little evidence that actively managed bond strategies, outside of some niche areas, can deliver consistently better-than-benchmark returns. A liquid, actively traded market makes finding bonds or issuers with real value tricky. The proliferation of relative value models and the more recent ability to trade entire portfolios of bonds have eroded many of the market mispricings.

While relative value may not be as a lucrative hunting ground as it once was, active managers remain better

placed to position for broader macro trends. For example, the ability to underweight duration exposure during a central bank tightening cycle is a huge advantage. The trickier part is timing the return to a more normal duration.

This is illustrated by the Euro Aggregate exposure during the latest European Central Bank policy tightening cycle, July 2022 to September 2023. The Euro Aggregate contains a broad range of euro-denominated exposures, predominantly Treasuries (55%) and corporates (19%) but also non-corporates (10%), agencies (6%) and asset-backed exposures (5%). With a relatively long duration of over six years, it struggled during the 2022 bear market in bonds, losing over 9%.³ In 2022, the broad Bloomberg Euro Aggregate Index outperformed just 27% of its Morningstar peer group,⁴ its worst relative performance in over 10 years (Figure 6).

Figure 6: Active manager performance in European bonds



Source: Morningstar Direct, as of 31 March 2025. The information contained above is for illustrative purposes only. Past performance is not a guarantee of future results.

FACT

An ETF's diversification can help to mitigate unforeseen political and sentiment-driven events.

Switching out of an all-maturity exposure into a strategy with a shorter duration would be a solution to a prolonged market sell-off. But it is more difficult to navigate event risk with index-based strategies. There also is limited evidence that active management is adept at avoiding or exploiting unexpected risks.

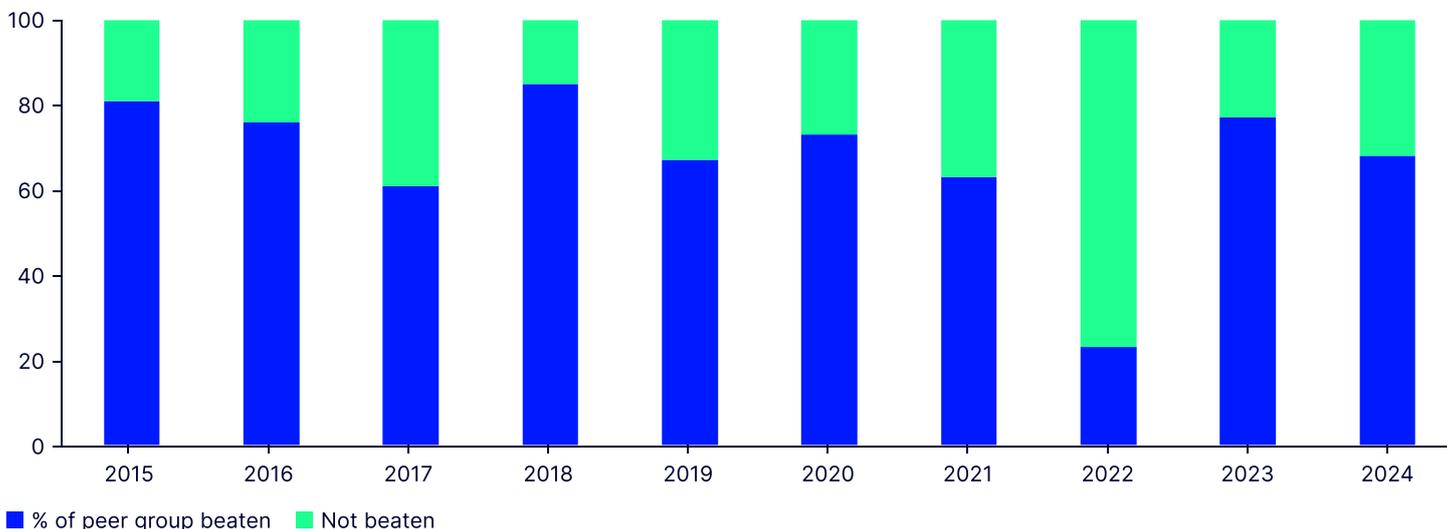
Take French President Macron's June 2024 surprise general election call. This precipitated a sharp widening in spreads of French government (OAT) bonds to German bunds, which would have been a drag on performance. The ability to underweight OATs in an active portfolio could have been a key catalyst for outperformance, but the returns of the government component of Euro Aggregate suggest few active managers had the foresight to spot the unexpected. In

2024, the Bloomberg Euro-Aggregate Treasury Index outperformed 68% of its Morningstar peer group (Figure 7).⁵

This is a common outcome. The Bloomberg Euro-Aggregate Treasury Index has outperformed, on average, 67.4% of funds over the past 10 years and beat over 50% of the funds in the sector in nine of the past 10 years. The numbers for Euro corporates are also relatively high, beating, on average, 57.1% of funds and returning better than 50% of funds in eight of the past 10 years.⁶

It's as difficult to beat the benchmark in the most liquid of fixed income markets as it is in equity markets.

Figure 7: Active manager performance in European government bonds



Source: Morningstar Direct, as at 31 March 2025. The information contained above is for illustrative purposes only. Past performance is not a guarantee of future results.

FICTION 6

**There are too many
bonds for index
investing to work
efficiently.**

FACT

An index investment manager's objective is to seek to track an index's return with minimal tracking error—not to hold every bond in the index.

It is generally not possible to hold every bond in an index, given the sheer number of bonds. As an example, the Bloomberg Euro Aggregate Index contains in excess of 7,000 different bonds.⁷ That total includes:

- Euro government bonds
- Bonds from supranational banks such as Kreditanstalt Fuer Wiederaufbau (KfW)
- Bonds from European corporate issuers
- Securitised bonds
- Euro-denominated bonds from foreign issuers

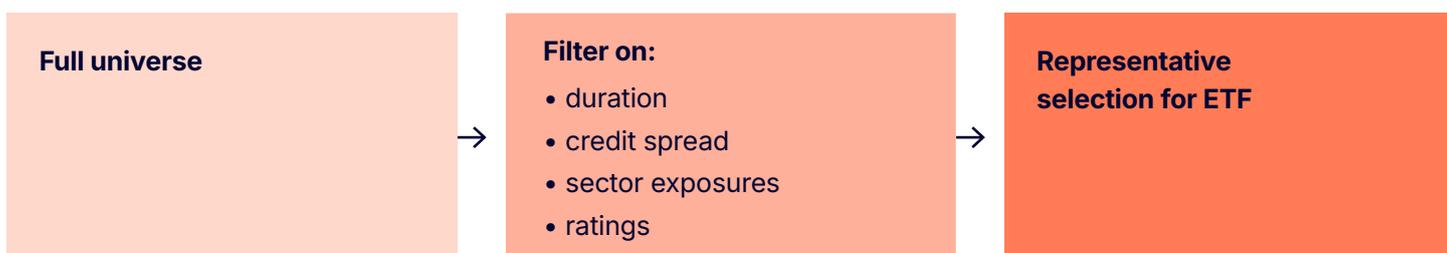
Given the diverse holdings, portfolio managers attempt to replicate the risk characteristics of the index through sampling, rather than by holding every security. This means replicating the duration, curve and issuer credit exposure of the index. Sampling can be the most efficient technique for constructing portfolios, as many broad fixed income indices include a large number of securities, but not all of those securities can be purchased. Coupled with potentially high transaction costs to access illiquid bonds, full replication is not always possible or practical. With a sampling approach, a portfolio manager can seek to build a portfolio with the same characteristics as the index.

At a high level, portfolio managers can generally take two approaches—top-down or bottom-up—to ensure tracking error remains tight and performance deviations are minimal as a result of exposure differences.

Approach 1—top-down approach

This approach seeks to align the common factors of the ETF to the index, as these are the key variables that drive market beta. The factors include:

- **Duration:** Considering how to match on key rate duration exposures.
- **Credit spread:** Examining differences between option-adjusted spread, as well as other metrics such as option-adjusted spread duration.
- **Sector exposures:** Looking at the sector and industry compositions to manage macro impacts.
- **Ratings:** Allocating at the credit rating level.



Approach 2—bottom-up approach

The bottom-up approach is often used in markets such as high yield or convertible bonds, where portfolio managers typically find more price volatility.

In a bottom-up approach, a portfolio manager tries to identify large or outsized idiosyncratic risks and mitigate them. An example of this is making the decision to purchase one bond instead of another from a company based on its position in the credit curve, a factor that can impact single bond volatility.

As an illustration, we can consider the characteristics of a representative SPDR ETF tracking the Bloomberg Euro Aggregate Bond Index. As shown below, while the fund may only hold just over 2,500 out of 7,300 securities in the Index, the underlying portfolio matches on other characteristics such as yield, coupon, maturity, option-adjusted spread, spread duration, key rate durations and average credit rating.

Figure 8: Characteristics of a representative SPDR ETF tracking the Euro Aggregate Bond Index

	Representative SPDR ETF	Bloomberg Euro Aggregate	Plus/minus
Local YTW	2.83	2.82	0.01
Option adjusted duration	6.41	6.37	0.04
Option adjusted spread	61.83	61.60	0.23
Coupon	1.960	2.067	-0.11
Bloomberg composite rating	AA3/A1	AA3/A1	—
Key rate 6M	0.06	0.06	0.00
Key rate 2Y	0.62	0.61	0.01
Key rate 5Y	1.70	1.68	0.02
Key rate 10Y	1.88	1.86	0.02
Key rate 20Y	1.19	1.20	-0.01
Key rate 30Y	0.97	0.96	0.01

Source: State Street Investment Management, Bloomberg Finance, L.P., as of 31 December 2024. The above example is for illustrative purposes only.

FICTION 7

**Trading fixed income
is too difficult,
understanding ETF
pricing and liquidity
is challenging.**

FACT

Complexity depends on the investor's needs, but there are several straightforward ways to access fixed income ETFs.

Investors seeking to trade fixed income ETFs have two primary avenues:

1

Exchange liquidity

Requires access to a front-end trading platform and a brokerage or custodial account. The investor would also need a DTC number if self-clearing.

2

Off-exchange/ over-the-counter (OTC) liquidity

Requires establishing trading relationships with a broker-dealer and/or market maker and account settlement instructions to be able to book and settle individual trades.

Source: State Street Investment Management, as of 31 December 2024. The above diagram is for illustration purposes only.

When considering whether to trade on exchange or OTC, investors should primarily consider their trade size. As you would expect, similar to single stock equities, larger trade sizes exceeding average daily volume should be handled with greater care and investors should work with a broker-dealer or market maker OTC.

As a guiding principle, if the trade size is typical in the underlying market, it should be acceptable in the ETF. Capital markets teams can serve as a valuable resource for investors to provide guidance on liquidity. These professionals are in tune with the markets and have robust relationships with liquidity providers. Capital markets teams can opine on optimal trading strategies depending on the ETF, the underlying market, the size of the trade and, most importantly, the priorities of the executing trader.

Some investors may wish to understand the components that are used to price an ETF, such as principal, interest, cash and accrued interest/undistributed income. This information is used in NAV construction and is factored into the costs that a broker must bear when creating/redeeming ETF shares, which in turn is embedded in the prices at which they are willing to buy and sell ETF shares.

ETF issuers generally publish daily reports that include all these components, such that any investor can price the ETF. Nonetheless, pricing remains dynamic, as it depends on factors such as time of trade (it is generally better to trade when the underlying market is liquid and the creation/redemption window is open); hedging costs; and dealer balance sheet charges. And of course pricing is also dynamic because bid/offer can vary with trade size.

FICTION 8

**Fixed income ETFs
exaggerated the
underlying bond
market falls during the
COVID-19 crisis.**

FACT

Market participants gravitated toward ETFs as price discovery and liquidity vehicles.

As fears over the impact of COVID-19 increased in March 2020, market liquidity deteriorated. Initially, risk assets were off-loaded and credit spreads blew out, but panic selling set in as market participants sought safety in cash. Even ‘safe assets’ such as government bonds and gold were sold as these were some of the few assets that continued to trade. Eventually, even these markets started to become dysfunctional. That was the point at which central banks stepped in, announcing significant asset purchase programs that calmed the market.

During the period of stress, ETF prices also corrected lower but there was no evidence of the ‘doom loop’ of ETF selling (driving underlying assets lower, precipitating more ETF selling) that some in the market had indicated was a risk. There were some significant dislocations between ETFs and their NAVs, resulting in larger than usual premiums/discounts; however, this suggests that the arbitrage band in which ETFs usually trade had widened and shifted to incorporate new information relating to the underlying bonds.

These dislocations have been attributed to the following three factors:

- **Stale or delayed NAV pricing:** Fixed income liquidity became challenged and pricing opaque, especially in credit markets. Fixed income ETFs, however, tend to reflect more real-time sentiment and realistic pricing levels as to where the basket of bonds should trade. As a result, pricing on individual bonds can lag behind the real-time market sentiment and executable pricing levels reflected by the ETF, resulting in the appearance of large discounts to NAV. In some cases, the ETF price may be a better representation of actionable trade prices of the underlying constituents.
- **Less dealer support for corporate bond liquidity:** A lack of liquidity in the underlying market meant that the usual process of primary dealers arbitraging ETF price-NAV dislocations was impaired.
- **Discrepancies between NAV strike and ETF closing times:** End-of-day NAV prices can be struck at a different time than an ETF’s closing auction, resulting in different values—especially in times of high market volatility.

Figure 9: Average premium/discount of fixed income ETFs

	2019 (%)	Jan 2020 (%)	Feb 2020 (%)	Mar 2020 (%)	Apr 2020 (%)	May 2020 (%)
NYSE Arca						
SPDR ETFs	0.06	0.06	0.01	-0.91	0.05	0.04
ETF industry	0.07	0.08	0.05	-0.58	0.01	0.04
London Stock Exchange						
SPDR ETFs	0.1	0.07	0.06	-0.37	0.15	0.15
ETF industry	0.09	0.08	0.05	-0.49	0.24	0.15
Australia Stock Exchange						
SPDR ETFs	0.07	0.08	0.08	-0.75	-0.47	0.02
ETF industry	0.12	0.11	0.13	-0.96	-0.23	0.06

Source: State Street Investment Management, Bloomberg Finance L.P., as of 31 December 2024.

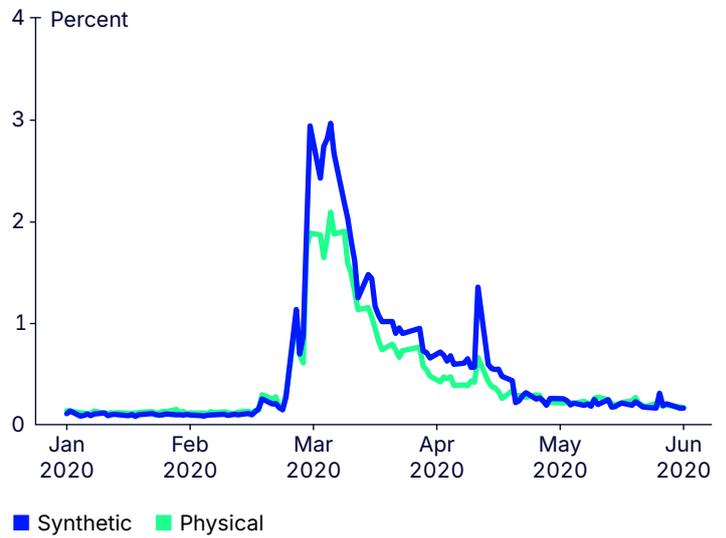
While some may question the price discounts to NAV observed in fixed income ETFs during March 2020, we believe market participants were using ETFs as price discovery tools. The discount in ETFs reflected fair market prices whereby willing buyers and sellers assessed the value of the underlying bonds. Bond prices lagged real-time market sentiment and realistic trading levels. Real-time sentiment, however, was likely reflected in fixed income ETF market prices where the market deemed bonds should trade based on prevailing macro information and the assessment of related risks.

This was also the conclusion of the BIS in its paper, *The recent distress in corporate bond markets: cues from ETFs*,⁸ with the suggestion that “ETF prices are more reactive to market developments than the prices of the underlying bonds are, especially at times of market stress.”

The BoE concurs with its analysis suggesting that “During the shock to markets from the Covid pandemic in March 2020, ETFs were more liquid than their underlying assets. As a result, bid-ask spreads for ETFs may have better reflected the ‘true’ trading costs of the underlying assets.”⁹

Far from driving market weakness, the surge in fixed income ETF trading volumes in March 2020, during a period of steep discounts, suggests that market participants gravitated towards ETFs as price discovery and liquidity vehicles.

Figure 10: Average 5-day spread for physical vs. synthetic fixed income ETFs



Source: Bloomberg Finance L.P., as of 30 September 2025.

State Street Investment Management: A leader in fixed income index investing

The scale to specialize

- State Street Investment Management’s scale enables our portfolio managers, traders, and investment strategists to be sector specialists and based in their geographic markets.
- Our dedicated Capital Markets teams provide 24-hour coverage across global markets, offering enhanced liquidity and cost-efficient* trading strategies.
- Entrusted with \$676 billion in indexed fixed income assets, including \$611 billion in fixed income ETFs, and managing 30+ currencies across 40 different countries.**

Proven track record

- Over 25 years of bond index investing—our first fixed income index fund launched in 1996.
- Manage more than 100 individual fixed income index strategies, providing choice for investors.
- More than 100 fixed income professionals dedicated to conducting research, managing risks and costs, and supporting our clients.

Innovative solutions for bond investors

- Comprehensive range of cost-effective* ETFs.
- Offering access to government and corporate bonds across the yield curve, using a consistent index methodology.

\$676 B**

in fixed income assets

100+

individual fixed income index strategies

25 Yrs

of bond index investing

* Frequent trading of ETFs could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

** Source: State Street Investment Management, as of 31 December 2024.

Endnotes

- 1 Source: Morningstar Direct, as of 31 December 2024
- 2 State Street Investment Management looked at 13 European and US, investment grade and high yield fixed income index tracking strategies. In 2024 only six saw their index outperform the median returns of the peer group, compared to an average over the past 10 years of between eight and nine strategies.
- 3 The Bloomberg EuroAgg TR Index returned -9.01% in 2022. Source: Bloomberg Finance L.P. as of 30 April 2025.
- 4 Source: Morningstar, as of 31 March 2025. Peer group category: Euro Diversified Bonds.
- 5 Source: Morningstar, as of 31 March 2025. Peer group category: Euro Government Bonds.
- 6 Source: State Street Investment Management, Morningstar. Based on annual data 2015 to 2024, as of 31 March 2025.
- 7 BIS Bulletin No 6, The recent distress in corporate bond markets: cues from ETFs, Sirio Aramonte and Fernando Avalos, 14 April 2020: <https://bis.org/publ/bisbull06.pdf>.
- 8 See BoE paper: Could price data from exchange-traded funds help open-ended fund managers calculate price adjustments? <https://bankofengland.co.uk/bank-overground/2021/could-price-data-from-exchange-traded-funds-help-open-ended-fund-managers>,
- 9 Source: Bloomberg Finance L.P., as of 31 December 2024. The above diagram is for illustrative purposes only.

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At State Street Investment Management, we have been helping create better outcomes for institutions, financial intermediaries, and investors for nearly half a century. Starting with our early innovations in indexing and ETFs, our rigorous approach continues to be driven by market-tested expertise and a relentless commitment to those we serve. With over \$5 trillion in assets managed*, clients in over 60 countries, and a global network of strategic partners, we use our scale to deliver a comprehensive and cost-effective suite of investment solutions that help investors get wherever they want to go.

* This figure is presented as of September 30, 2025 and includes ETF AUM of \$1,848.02 billion USD of which approximately \$144.95 billion USD in gold assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Investment Management are affiliated. Please note all AUM is unaudited.

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