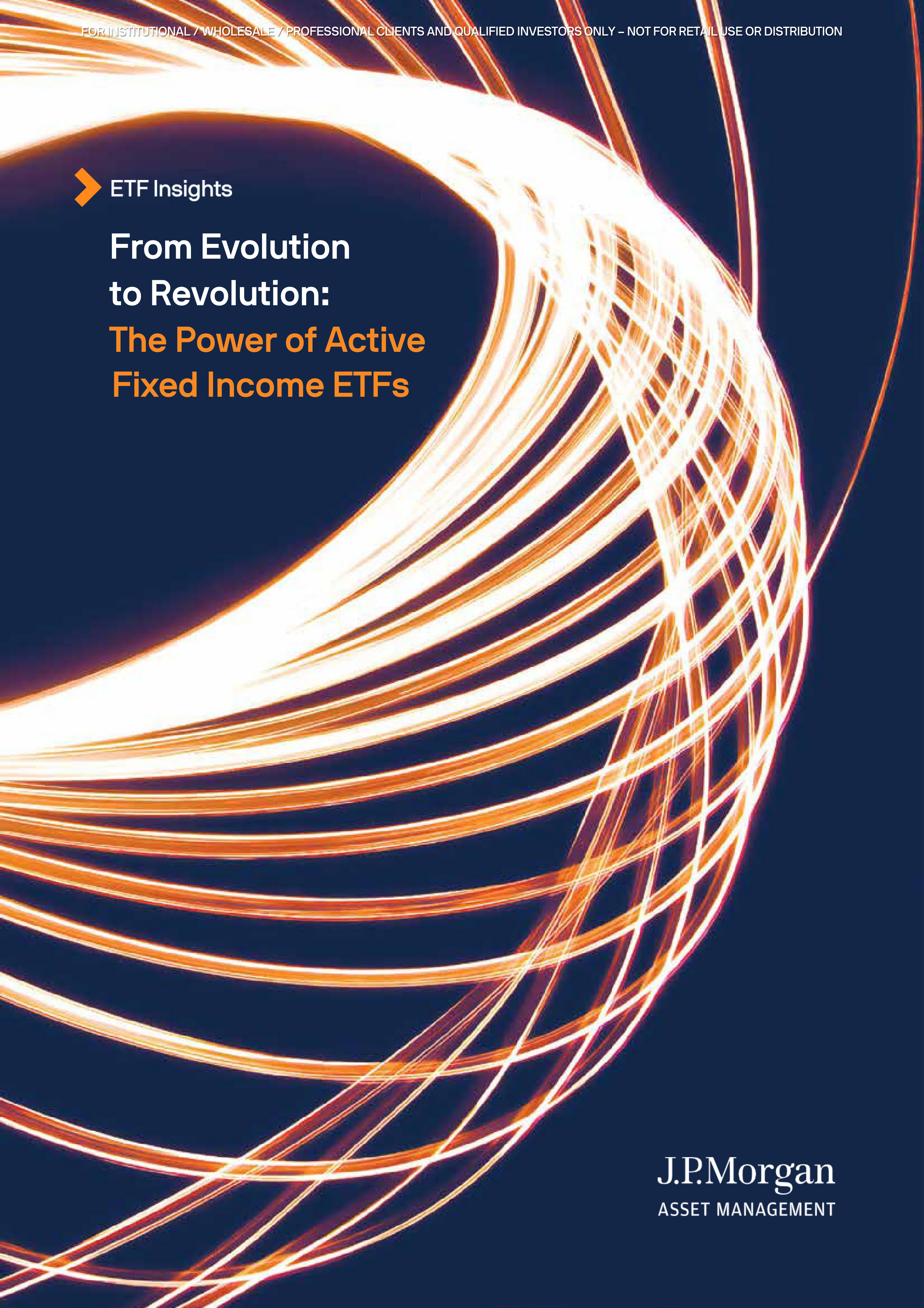
ETF Insights

From Evolution to Revolution: The Power of Active Fixed Income ETFs



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ASSET MANAGEMENT

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Key takeaways

1 Fixed income is suited for active management

The fixed income market is large, complex and prone to inefficiencies requiring investors to account for a multitude of factors, including interest rate sensitivity and credit risk. Active managers may navigate these challenges for investors and potentially deliver higher yields and better risk management compared to well-known benchmarks.

2 The growing influence of exchange-traded funds (ETFs) in the fixed income market

The ETF structure for fixed income was one of the most consequential developments in two decades because it provides investors with a potentially liquid investment vehicle in a market not always known for its liquidity. The ETF structure also offers cost and tax efficiencies that mutual funds and other vehicles may lack.

3 The future of active fixed income ETFs is here

Without the constraint of replicating an index, the ETF structure offers active managers the flexibility to tailor and optimise investments. This flexibility enhances liquidity management, which has proven crucial during market stress. It will also be important in the current interest rate environment.

In recent decades, the fixed income market has undergone significant transformation in terms of size, use cases and methods of execution. One of the most transformative developments has been the introduction of a diverse range of ETFs, which have enhanced liquidity to the global fixed income market. ETFs are a modern structure that equip managers with new tools to effectively manage portfolios, making it simpler to capture market inefficiencies and access segments not available through passive index strategies.

Fixed income ETFs are a large and growing market

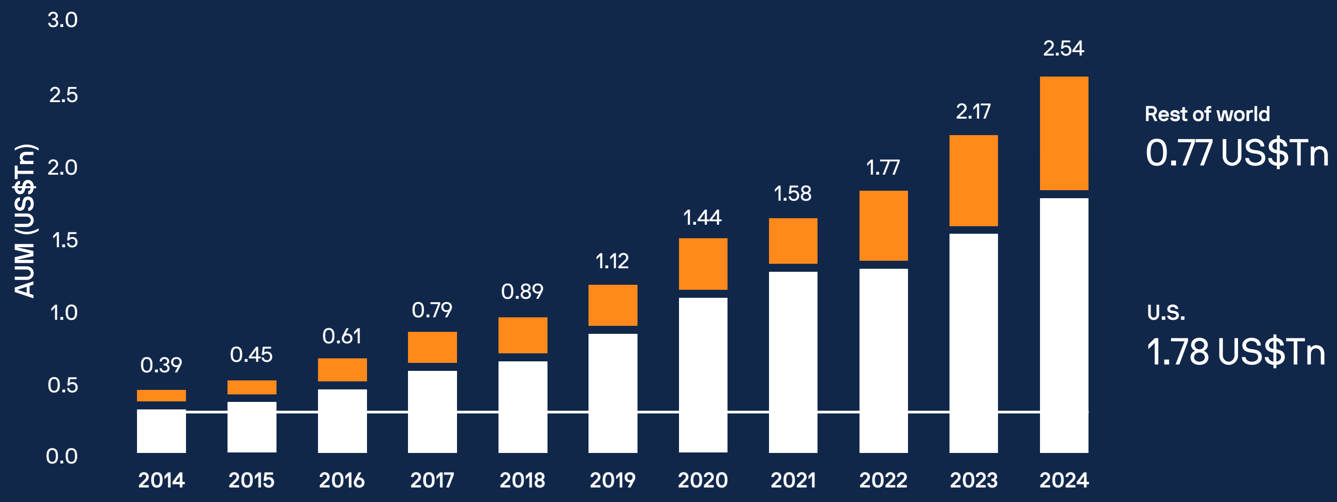
As a background, the widespread electronification of the bond market in the early 2000s and the Securities and Exchange Commission's (SEC) Rule 6c-11 in 2019, better known as the ETF Rule, were catalysts for the modernisation of the bond market and created on-ramps for new debt instruments. Fixed income ETFs started in 2002 as passive vehicles utilized, as low fee building blocks by asset allocators and model managers to complete portfolios. The next evolution of the market has been marked by the rapid growth of actively managed fixed income ETFs.

By 2030, we forecast the global fixed income ETF market to grow to US$6 trillion and the active fixed income ETF market to grow to US$1.7 trillion, with the US market capturing a significant portion of that growth*. The Federal Reserve's (Fed) cutting cycle is one reason why the current environment is conducive for further growth. Historically, the Bloomberg U.S. Aggregate Index averaged a cumulative 20% return over the 24 months following a final rate increase[1].

* Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.

Global fixed income ETF assets have grown six times in the past ten years to US$2.5 Trillion

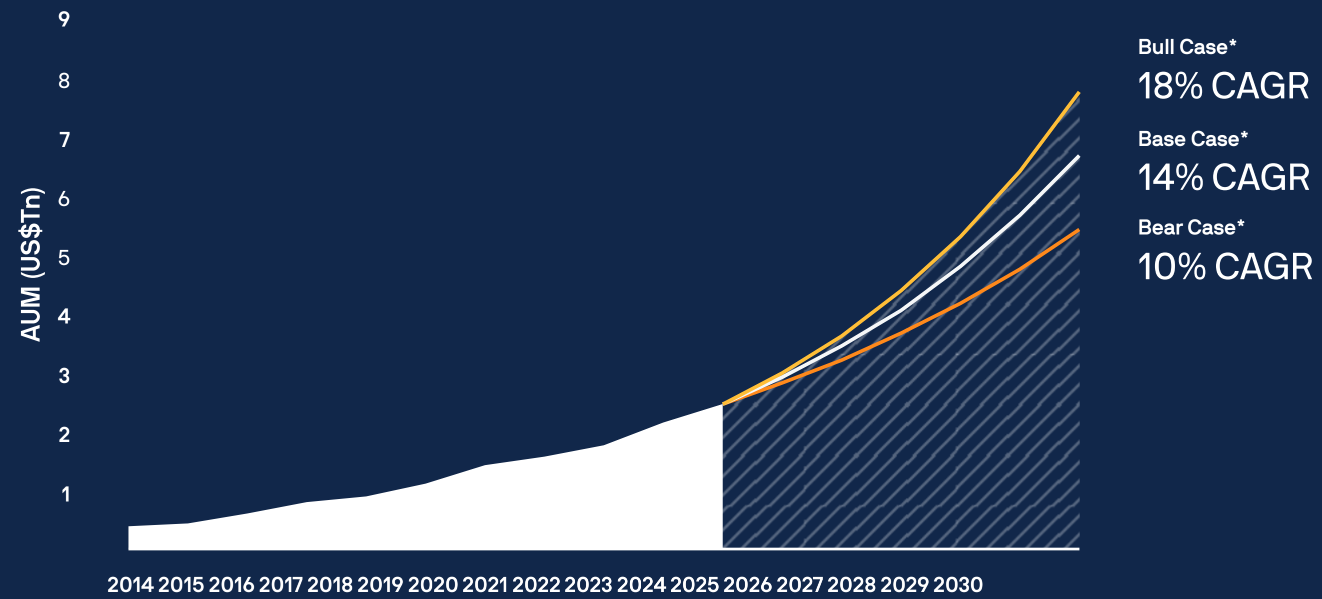
Exhibit 1 : US and rest of the world AUM growth by calendar year



Source: Bloomberg, J.P. Morgan Asset Management. Data as of 31.10.2024.

Global fixed income ETF assets are projected to grow to over US$6 trillion in 2030

Exhibit 2: Global Fixed Income ETF AUM growth projection



Source: Bloomberg, J.P. Morgan Asset Management. Data as of 31.10.2024. CAGR refers to compound annual growth rate.

* Projections are based on J.P.Morgan Asset Management forecasts. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.

Why active fixed income

The fixed-income market, characterised by a wide range of debt issuances differing in maturity, quality, and type, is vast, intricate, and contains structural inefficiencies.

The global fixed income market is about US$141 trillion in size, encompassing over 3 million unique securities, in comparison, the US$115 trillion global equity market includes only 9,000 securities.

Global Fixed Income Market	vs.	Global Equity Market
US$141 Trillion		US$115 Trillion
3M		9K
Unique Bonds		Securities

Source: Bloomberg. Data as of 30.09.2024.

When investing in fixed income, investors must account for interest rate sensitivity, credit risk, liquidity, structural market inefficiencies, concentrations risk. Whereas passive fixed income strategies must absorb these challenges, active managers have the flexibility to navigate them. Active management has been proven effective, with 80% of core and core plus* managers outperforming the Bloomberg U.S. Aggregate Index over the past five years[2].

* Core-plus bond funds invest primarily in investment-grade US fixed-income issues including government, corporate, and securitised debt. However, they generally have greater flexibility than core offerings to hold non-core sectors such as corporate high yield, bank loan, emerging-markets debt, and non-US currency exposures.

Fixed income investing presents challenges

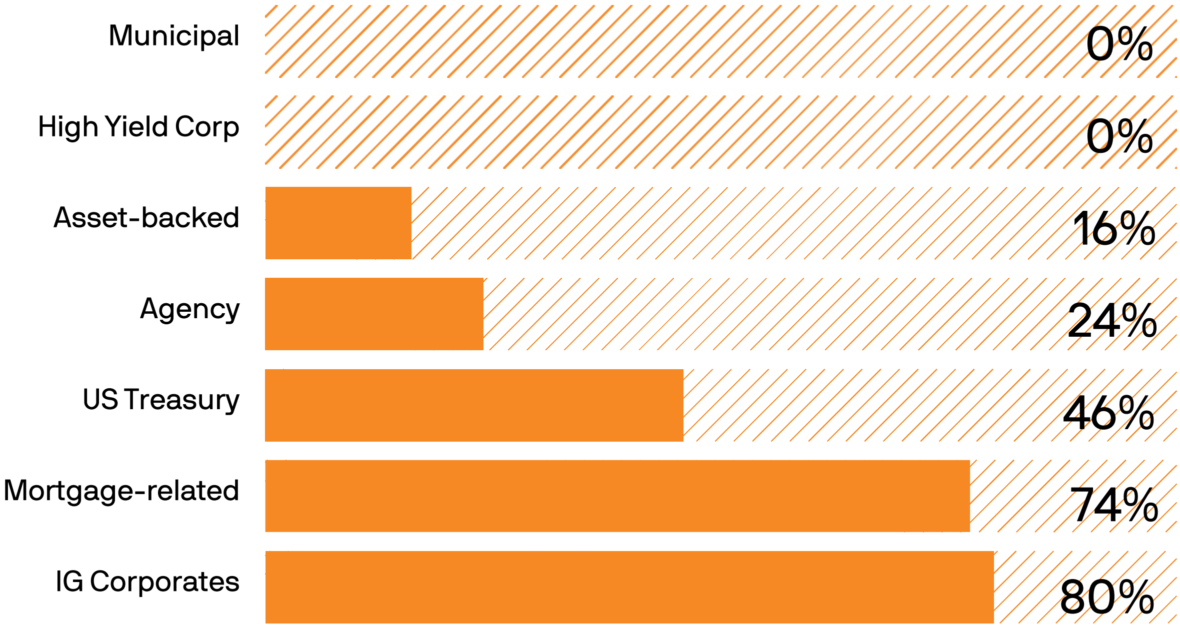
Achieving meaningful diversification is complex

Buying individual bonds for a portfolio requires a significant amount of time, knowledge and capital. Benchmark replication often requires sampling and leads to variations in the underlying bonds. To that end, even passive ETF strategies have an active component, given the basket of securities is strategically optimised relative to the benchmark. For instance, the three largest passive core fixed income ETFs hold an average of 83% of the holdings of the underlying index they track[3].

Another obstacle to achieve diversification is that fixed income benchmarks typically do not fully represent the market opportunity due to their rule-based construction. For example, the Bloomberg U.S. Aggregate Index is often viewed as representing the US bond market, yet it excludes about 47% of the US$53 trillion US public bond market (**Exhibit 3**). Certain asset classes, such as high yield corporates and non-agency mortgage-backed securities are excluded, while others, such as asset-backed and agency securities, have only limited exposure within the index. A large part of the growing securitised market is completely excluded.

Nearly half of the US bond market is not represented in the Bloomberg U.S. Aggregate Index

Exhibit 3: Segments of the US$53 trillion US bond market



Source: Orange bar represents Bloomberg U.S. Aggregate Index representation in the respective category. The orange bar and the tiles together show the total size of each category. Bloomberg, Securities Industry and Financial Markets Association, Bank of America. Figures reflect the most recently available data as of 31.03.2024. Some figures may be lagged. Core and core plus fixed income strategies do not typically include tax-free municipal securities. IG Corporates refers to investment-grade corporate debt.

Active management provides exposure to skill, flexibility and options

Research is a game changer

Active managers may be selective in the debt issuers that they hold and adjust top-down positioning, including sector rotation, duration exposures and overall portfolio risk positions based on changing market conditions. They may analyse correlations among asset classes and interest rate sensitivity of different sectors. To assess the merits of one sector over another and compare opportunities across different markets, active managers typically leverage a research framework that combines:

Fundamental analysis
Macroeconomic data, such as growth and inflation, and corporate health figures, such as default rates, earnings and leverage metrics

Quantitative analysis
Spreads, yields and other measures that determine the extent to which a sector or security is rich or cheap—on an absolute basis, versus history and relative to other sectors

Technical analysis
Supply and demand dynamics (issuance, maturities and flows), and investor positioning, sentiment, and liquidity

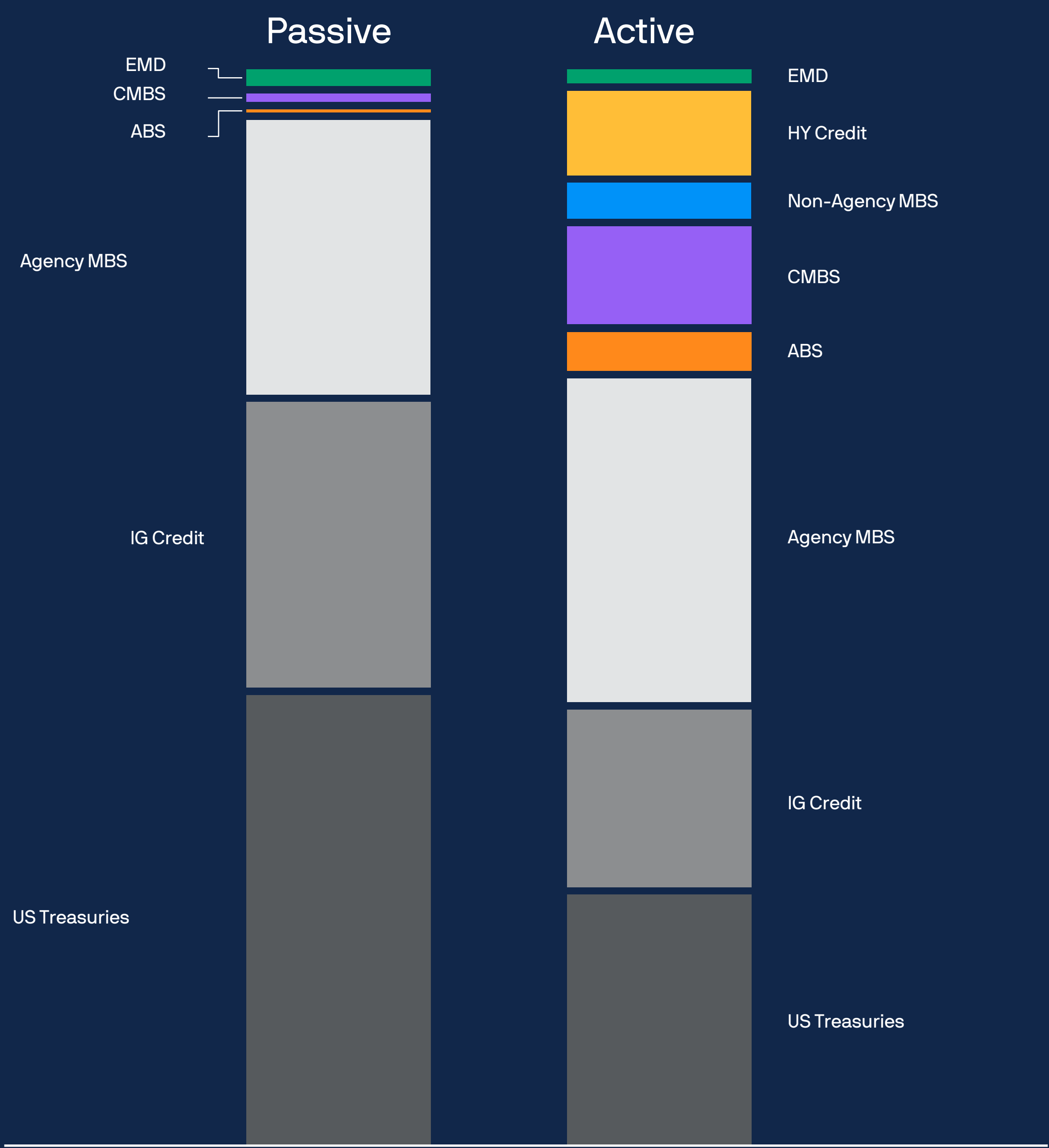
Expanded opportunity sets

Instead of strictly following an index, active managers may invest in a more expansive universe and find opportunities to generate alpha.

Managers have the flexibility to seek out meaningful returns in areas of the fixed income market that are typically inaccessible to everyday investors, such as the securitised and high-yield markets (**Exhibit 4**).

Active fixed income gives investors exposure to more opportunities and potential spread capture

Exhibit 4b: Expanded asset class opportunities for active management



Source: J.P. Morgan Asset Management, J.P. Morgan Chase, Bloomberg. Representative fund and benchmark data as of 31.05.2024.
ABS refers to asset-backed securities; IG: investment grade; HY: high yield; EMD: emerging market debt; CMBS: commercial-mortgage-backed security. This information is provided for illustrative purposes only to demonstrate general market trends. Information shown is based upon market conditions at the time of the analysis and is subject to change. Not to be construed as Investment recommendation.

securitised

Agency MBS

+ Agency mortgage-backed securities (MBS) is the largest segment in the securitised market[4].
+ The Fed's quantitative easing during the pandemic significantly impacted agency MBS valuations, creating opportunities for active managers.
+ Active managers may select specific collateral profiles and agency collateralised mortgage obligations to optimise portfolio convexity and duration stability.
+ To assess whether bonds or bond attributes are priced below their intrinsic value requires detailed analysis.

Securitised Credit

+ The securitised credit subset carries credit risk, requiring a dedicated research team to underwrite each deal.
+ Debt outstanding in this market totals over US$3 trillion, but nearly 90% of it is not represented in the Bloomberg U.S. Aggregate Index[4].
+ This market is diverse, offering exposure to residential and commercial mortgages and business and consumer loans.
+ Auto asset-backed securities, for example, are backed by auto loans and offer multiple classes (tranches) with varying credit ratings.
+ Securitised credit sectors may provide a material spread advantage over comparable credit quality corporate debt.

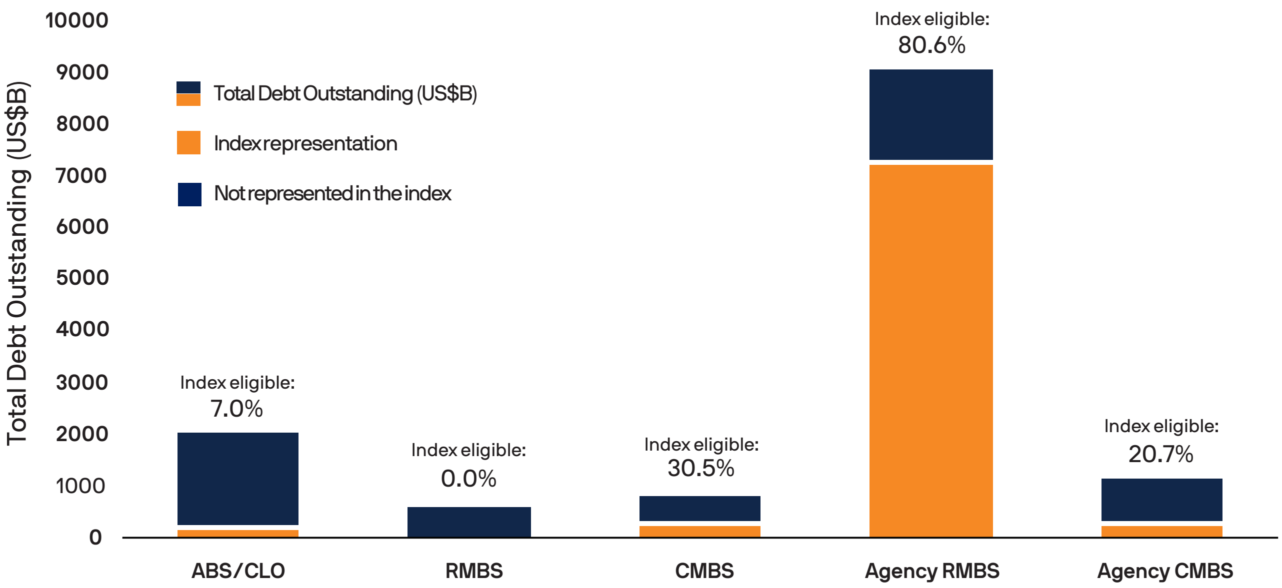
High Yield

+ The asymmetrical return profile of high yield bonds makes active management crucial.
+ CCC bonds may be volatile, and passive ownership may not add to long-term performance. Defaults are a risk.
+ CCCs account for approximately 15% of the high yield market. One-third of the total CCC index trades with a spread greater than 1000 basis points (bps), a traditional barometer for stressed credit[4].
+ Active managers may potentially avoid defaults and achieve higher recoveries through strong security selection and expertise in restructurings.
+ Certain high yield sectors, such as energy, have had volatile stretches, but active managers may avoid sectors without attractive relative value.
+ Passive exposure to highly leveraged companies in secularly challenged businesses may result in credit loss, whereas active managers may navigate these risks.

Investments in below investment grade or unrated debt securities, may be subject to higher liquidity risks and credit risks comparing with investment grade bonds, with an increased risk of loss of investment

Passive investors do not have access to about 25% of the US$13.2 trillion securitsed market

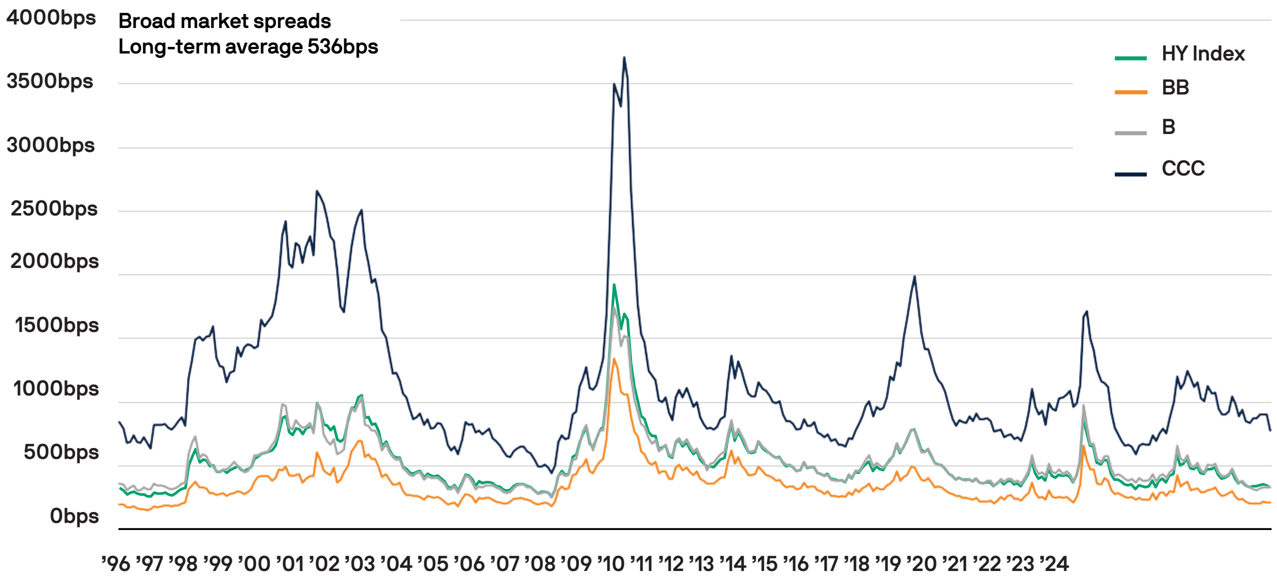
Exhibit 5: Total US securitised debt outstanding versus index representation



Source: BAML, Bloomberg as of 31.03.2024,. Debt outstanding reported in millions (US$B); index eligibility is relative to the Bloomberg U.S. Aggregate Index. RMBS refers to residential mortgage-backed securities.

Historically, high yield credits offer attractive spreads but asymmetrical return profiles, making active management important

Exhibit 6: Historical broad market high-yield spreads (spread-to-worst)



Source: ICE BofA US High Yield Indices as of 30.09.2024. ICE BofA US High Yield Constrained Index (HUC0) as proxy for broad market spreads; ICE BofA BB US High Yield Constrained Index (HUC1) as proxy for BB's spreads; ICE BofA Single-B US High Yield Constrained Index (HUC2) as proxy for B's spreads; ICE BofA CCC and Lower US High Yield Constrained Index (HUC3) as proxy for CCC's spreads. The above information is shown for illustrative purposes only. Indices do not include fees or operating expenses and are not available for actual investment. Past performance is not a reliable indicator of current and future results. This information is provided for illustrative purposes only to demonstrate general market trends. Information shown is based upon market conditions at the time of the analysis and is subject to change. Not to be construed as Investment recommendation.

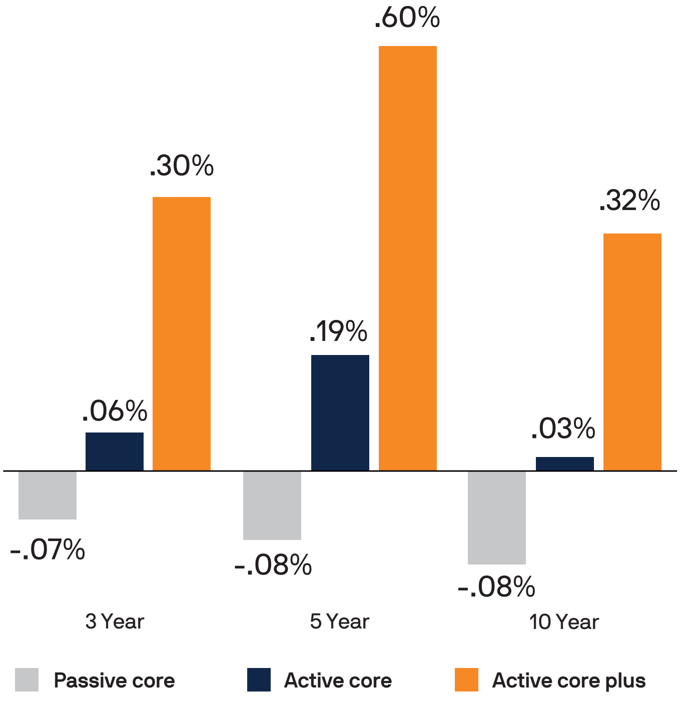
Proof is in the performance and active managers have outperformed

Over trailing 3-, 5-, and 10-year periods, active core plus and active core managers deliver average annualised net of fee returns that exceed those of the Bloomberg U.S. Aggregate Index[5]. However, manager selection is vital, given the wide dispersion in returns between the top- and bottom-performers. Past performance is not indicative of future results, but identifying managers with well-established research philosophies, processes, and experience across market cycles may increase the chances of positive outcomes.

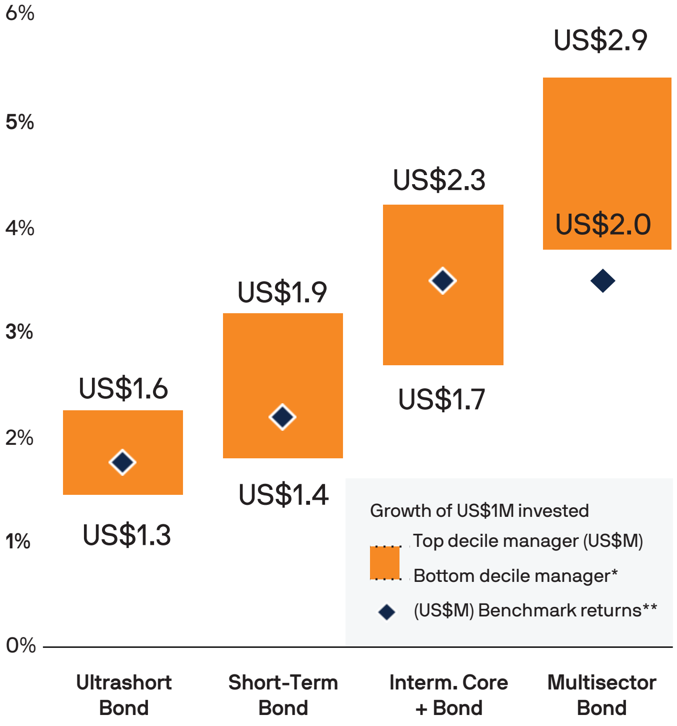
Active fixed income mangers have in the past outperformed passive strategies, though there is a wide dispersion of returns between top and bottom managers

Exhibit 7: Average active performance versus the Bloomberg U.S. Aggregate Index and range of manager returns

The active advantage
Average excess annualised returns



Manager selection matters
20-year manager performance dispersion and growth of initial US$1 million investment



LHS Source: Source: Simfund, J.P. Morgan Asset Management analysis; charts reflect the most recently available data as of 31.07.2024. Analysis includes mutual funds in the Morningstar intermediate core and intermediate core plus categories with a primary prospectus benchmark of the Bloomberg US Aggregate Bond Index. Only includes primary share classes as defined by Morningstar. Past performance is not indicative of future returns.

RHS Source: Morningstar, J.P. Morgan Asset Management. * Represents average annual portfolio return dispersion between the 10th and 90th percentile over a 20-year period for each Morningstar Category, including mutual funds and ETFs. Returns are updated monthly and reflect data through 31.07.2024. This information is for illustrative purposes only, does not reflect actual investment results, is not a guarantee of future results and is not a recommendation. **Ultrashort Bond: Bloomberg Govt/Corp 1 Yr Duration Index, Short-Term Bond: Bloomberg 1-3 Yr U.S. Govt/Credit Total Return Index, Intermediate Core Plus Bond: Bloomberg U.S. Universal Total Return Index, Multisector Bond: Bloomberg U.S. Universal Total Return Index. Past performance is not a reliable indicator of current and future results. This information is provided for illustrative purposes only to demonstrate general market trends. Information shown is based upon market conditions at the time of the analysis and is subject to change. Not to be construed as Investment recommendation

Why ETFs for active fixed income

ETFs revolutionised fixed income markets because they provide a quick, simple and reliable way to access bond markets. While ETFs represent less than 2% of the total US$141 trillion global bond market[7], they are an emerging growth story with significant momentum. In the past, they have shown they can add liquidity, particularly during times of market stress, a point that increasingly resonates with investors. The features we discuss below collectively provide flexibility, positioning ETFs as a modern structure that resolves many issues inherent in the mutual fund structure. Stemming from their liquidity and transparency, ETFs present several characteristics that may suit investors, portfolio managers, and the overall market.

> “ETFs provide additional tools for our portfolio managers to more effectively invest in the best interests of our clients.
>
> **Bob Michele,** CFA
> Head of Global Fixed Income, Currencies & Commodities

Features of the ETF structure

The externalisation of trading costs

ETFs and mutual funds aggregate assets from many investors, providing access to a diversified portfolio that may not be achievable through individual investments or separately managed accounts (SMAs). While ETFs and mutual funds offer economies of scale, an important distinction between the two is that the transaction costs for buying and selling mutual funds are borne by all shareholders. Conversely, ETF transaction costs are borne only by the individual investor entering or exiting the fund.

For example, when an investor places an order to purchase shares of a mutual fund, cash is delivered into the fund to be invested across securities in the portfolio. Transaction costs incurred from investing this cash reduces the end-of-day net asset value (NAV). With ETFs, share creations are received in-kind or via cash with a fee assessed to cover the cost to purchase underlying securities in order to not negatively affect the fund's NAV. Therefore, when an investor buys shares of an ETF, they do so in the secondary market at prices that already reflect these transaction costs. This structure isolates any realised cost to the shareholder buying or selling the ETF and insulates the NAV from other shareholder's trading activity.

Lower all-in costs than mutual funds

As trading volume increases, bid-ask spreads often tighten, leading to lower transaction costs for investors. **Exhibit 8** highlights the top 10 US high yield ETFs within Morningstar's High Yield category and approximates the cost investors pay to enter and exit an ETF compared to the costs associated with buying and selling the tradable universe of underlying bonds. ETFs delivered an average spread of 3.5 bps versus 26 bps for the underlying high yield securities. During periods of market stress, ETF spreads have been significantly tighter than basket spreads, including during the COVID-19 pandemic. This trend was especially evident in less liquid fixed income segments, such as high yield bonds. Trading volume in ETFs increased during these periods, while it declined in the high yield bond market. In addition to spread savings, ETFs generally offer lower total expense ratios than mutual funds.

ETF creations received in-kind or via cash with a fee assessed to cover the cost to purchase underlying securities do not negatively affect the fund's NAV.

Greater liquidity, especially during market stress

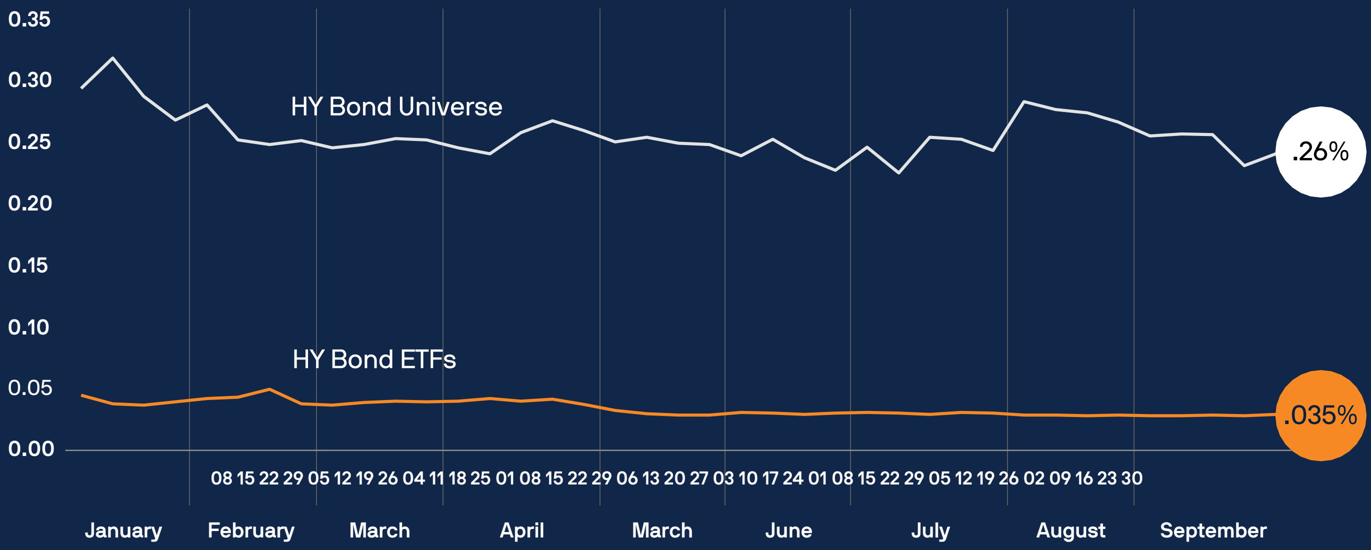
ETFs trade on exchanges, where investors may buy or sell shares at readily available prices throughout the day. The exchanges serve as centralised markets to match trading partners efficiently and transparently, and every dollar traded that does not flow into the primary market is considered additional liquidity. In fact, when looking at the top 10 US high yield ETFs, approximately 13% of their volume led to primary market flows[6].

Secondary markets may also facilitate large trades. Where robust secondary volumes exist with narrow bid-ask spreads, large trades may be executed at minimal costs. When additional liquidity is needed, market makers may tap the primary market to create or redeem shares, enabling them to offer more liquidity than an ETF's average daily volume (**Exhibit 9**).

When looking more closely at liquidity across US high yield bonds and ETFs during various periods of stress, we find that more volume was transacted in the secondary market than in the ETF's underlying securities. Despite this relationship, ETF trading in the underlying bonds still represents on average less than 5% of trading in the total US high yield bond market[7], debunking a popular myth that ETF volume materially impacts its underlying securities market. In addition, during periods of inflation concerns in 2022 and 2023, secondary market trading of the US high yield ETF market represented nearly 50% of the total US high yield trading volume during this period, despite primary volume from these ETFs representing less than 10% of the total US high yield market volume[7].

High yield bond ETFs have tighter spreads than underlying high yield bonds

Exhibit 8: HY Bond Universe vs. HY Bond ETFs - Bid/Ask Spreads



Source: MarketAxess, Bloomberg, J.P. Morgan Asset Management. High yield bond ETFs are represented by the top 10 high yield ETFs by AUM in the high yield Morningstar category. Data is as of 30.09.2024. . This information is provided for illustrative purposes only to demonstrate general market trends. Information shown is based upon market conditions at the time of the analysis and is subject to change. Not to be construed as Investment recommendation.

Secondary market liquidity facilitates large trades with minimal share price impact

Exhibit 9: Historical intraday trade execution of 7 million shares of Active Core Plus ETF

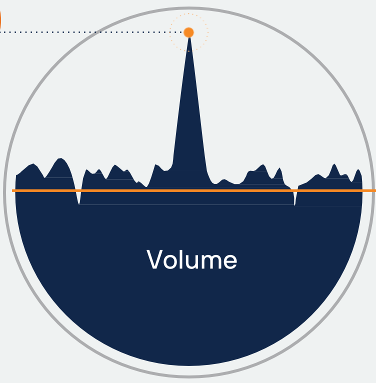
Execution
Trade occured one-cent above the offer side of a 2-cent-wide market.

Post-trade
Market price: Remains in line, little to no impact.

6,998,000
shares traded

31x
average daily trading volume

21%
of the ETF's AUM



Bid/Ask Spread
Regardless of the volume, the bid/ask spread remains virtually unchanged and the ETF remains liquid

Source: Bloomberg, J.P. Morgan Asset Management; as of November 2023. The manager seeks to achieve the stated objectives. There can be no guarantee the objectives will be met.

Price discovery

Premiums and discounts are a normal occurrence across all ETFs. In fixed income ETFs, premiums are often more prevalent as most issuers mark their NAVs at the bid side of the underlying bonds. While other factors may lead to premiums such as investor positioning and underlying transaction costs, the fact that a premium exists provides valuable intelligence about where the bonds in the portfolio are trading. This is referred to as price discovery.

This intraday price discovery brings efficiencies, which are often more noticeable in less liquid sectors of the fixed income market and during times of market stress. During these periods, an ETF may trade at an elevated premium or discount level, but this market price is often quicker to react and a more accurate reflection of the underlying bond values than its NAV.

Nasdaq's report, "Bond Markets vs. Bond ETFs During COVID," highlights a Bank for International Settlements (BIS) study that found ETF NAVs become "stale" during market stress[8]. The study suggests that ETFs, with their continuous trading and liquidity, absorb information faster than NAVs. Instead of indicating problems with ETFs, the price divergence shows that ETFs are superior for price discovery, while bond market prices are outdated and less accurate (**Exhibit 11**).

Portfolio management

Secondary markets may serve as an efficient mechanism for alleviating turnover in the underlying bond portfolio. Less turnover means less trading costs which may eat into a fund performance. In addition, portfolio managers do not have to continue to source similar bonds, especially as prices change. Based on trading data for the high yield funds mentioned in Exhibit 8, from a nine-month period ending September 2024, only approximately US$1.30 out of every US$10 transacted on exchange resulted in a flow to the primary market in the form of a creation or redemption. This means that 13% of investor trading activity in the ETF wrapper led to trading by the portfolio manager. This percentage is often reduced further during market stress and prevents portfolio managers from having to trade at inopportune times.

For products that utilise the in-kind mechanism, portfolio managers may manage the underlying portfolio's composition by accepting the delivery of bonds for creations and distributing certain bonds during redemptions. These transactions may further reduce the portion of the flow that portfolio managers would otherwise need to trade, increasing the size of a flow that they may accept into or deliver out of the fund without incurring higher transaction costs.

Daily transparency and access

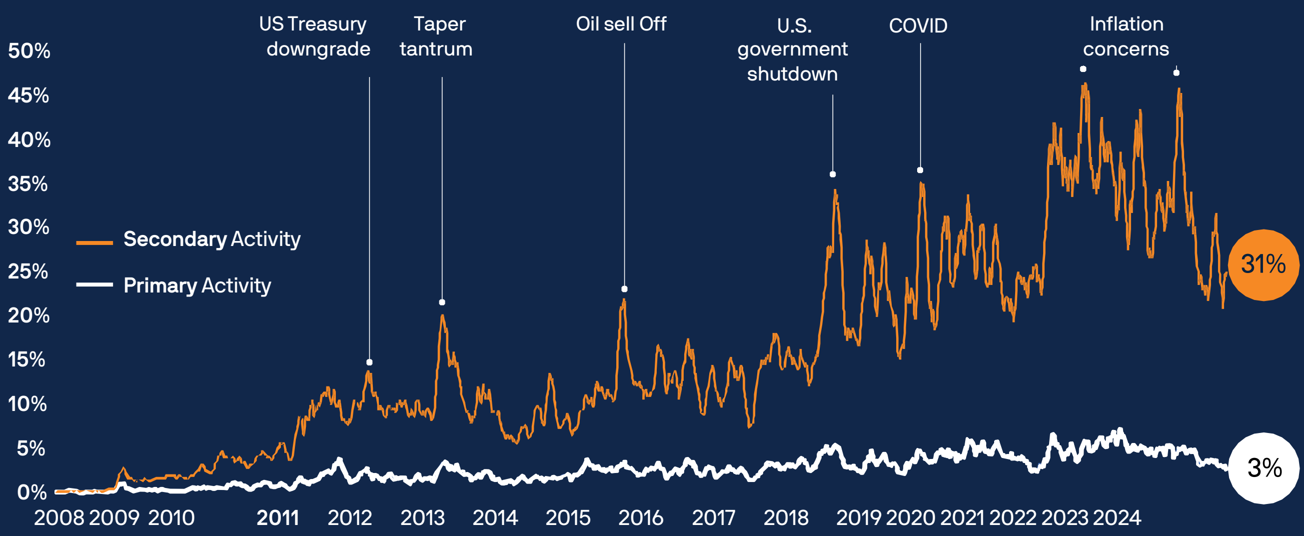
Most ETFs disclose their holdings daily, whereas mutual funds typically disclose holdings monthly or quarterly. Additionally, mutual funds have up to 60 days after the end of a quarter to publish their holdings, which may result in a delay of up to two months for investors to see the fund's allocation. Daily disclosure of ETF holdings provides a clear view of the underlying securities and enables investors to easily perform portfolio attribution to analyse their investment's performance. SMAs may provide similar daily transparency, but they often require higher investment minimums and possibly larger management fees. ETFs simply require access to a brokerage account and enough funds in their account to purchase one share.

Tax efficiency

ETFs typically distribute fewer capital gains than mutual funds, because secondary market activity limits the number of trades at the fund level, which reduces the potential for crystalising taxable consequences[9].

During market stress, transaction volumes tend to be higher in the secondary market than in high yield bond ETFs' underlying securities

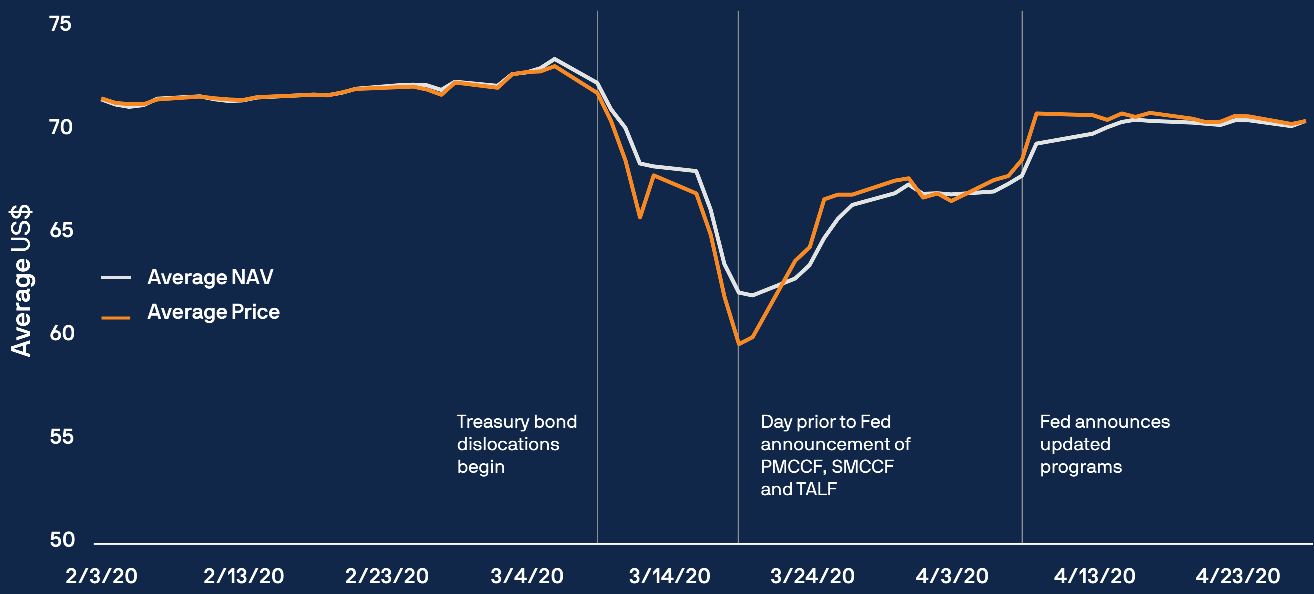
Exhibit 10: High yield bond ETF trading volume as a percentage of 20-day rolling trading volume of the overall high yield bond market



Source: Bloomberg, J.P. Morgan Asset Management. High yield ETF market is represented by HYG, JNK, PHB, HYLB, SJNK, SHGY, USHY, HYLS, ANGL, HYS, BSJL, BSJM, BSJK and BBHY. High yield bond market is represented by FINRA TRACE Market Breadth high yield Bond Dollar Volume (NTMBHV) and FINRA TRACE 144a HY US$ Vol (NTMB4HYV). Data as of 30.09.2024.

Fixed income ETFs have been effective price discovery tools, with secondary market pricing generally being more actionable and leading NAVs, especially in stressed markets

Exhibit 11: Investment grade bond ETF average price and average NAV during the COVID-19 pandemic



Source: Nasdaq, Bond Markets vs. Bond ETFs during COVID (24.06.2024).

Why active fixed income ETFs now

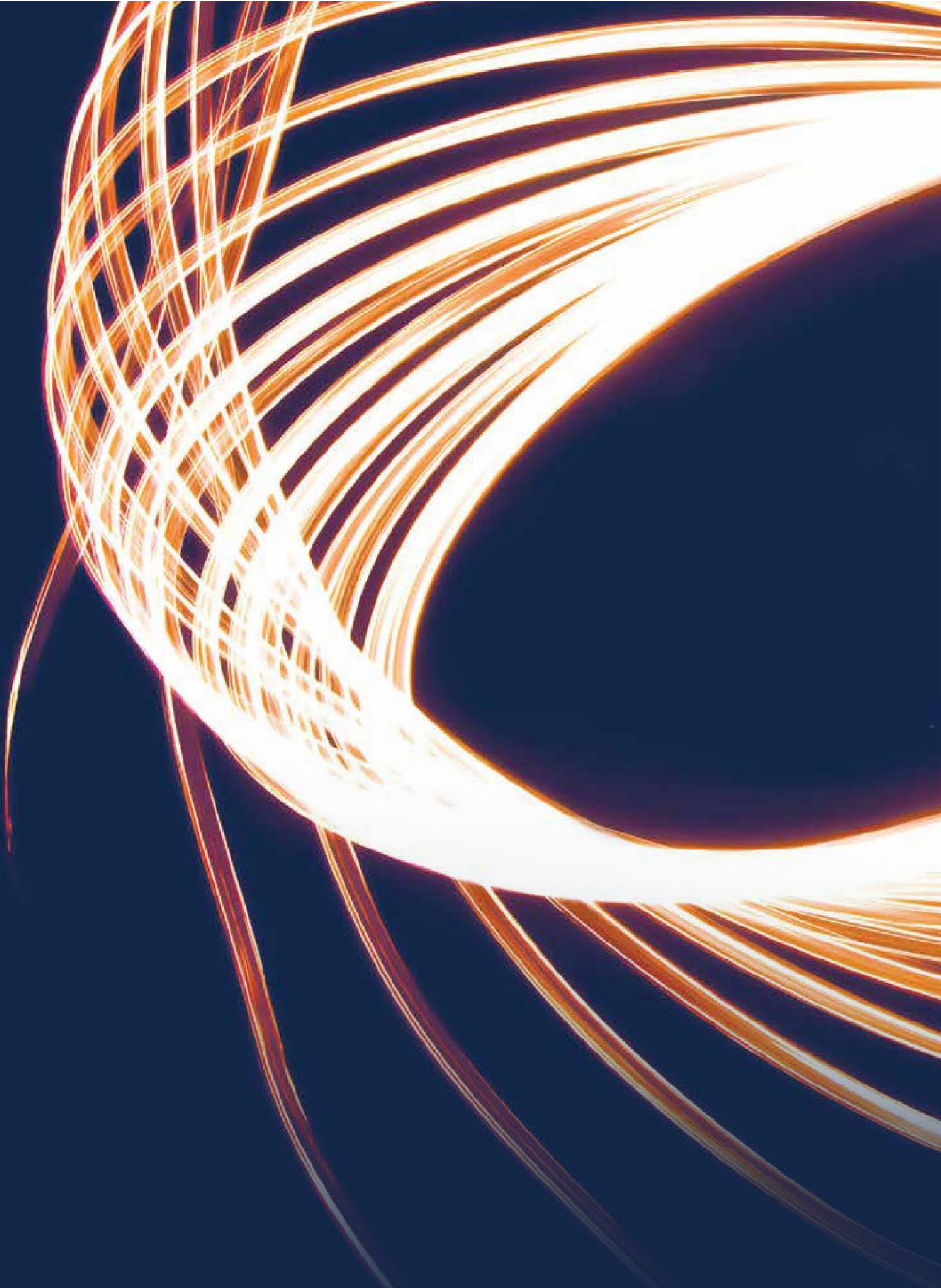
The global fixed income market is at a pivotal moment, offering unique opportunities for diversification, which may be accessed through actively managed ETFs.

Managing active fixed income ETFs provides managers with new tools, including the ability to capitalise on market inefficiencies, access a broader range of market sectors, and improve liquidity management.

The high trading volumes associated with ETFs allow portfolio managers to focus on their core expertise: managing portfolios for the benefit of shareholders.

ETFs have played a pivotal role in modernising the fixed income market. With the global interest rate cycle at a turning point, actively managed fixed income ETFs are becoming an increasingly utilised solution for investors.

1. Source: Bloomberg as of 31.10.2024.
2. Source: Simfund, J.P. Morgan Asset Management analysis; charts reflect the most recently available data as of 31.07.2024. Analysis includes mutual funds in the Morningstar intermediate core and intermediate core plus categories with a primary prospectus benchmark of the Bloomberg US Aggregate Bond Index.
3. Source: Bloomberg as of 30.09.2024.
4. Source: Bloomberg, FactSet, J.P. Morgan Asset Management as of 31.10.2024.
5. Source: Bloomberg, J.P. Morgan Asset Management. As of 31.10.2024.
6. Source: MarketAxess, Bloomberg, J.P. Morgan Asset Management as of 30.09.2024.
7. Source: Bloomberg, J.P.Morgan Asset Management as of 30.09.2024.
8. Source: Nasdaq, Bond Markets vs. Bond ETFs during COVID (24.06.2024).
9. Source: Morningstar, J.P. Morgan Asset Management. Cost basis is the original purchase price used to determine capital gains and losses. Unrealised gain is the profit, if any, on a security that has not been sold (current price minus cost basis). Data as of 31.12.2023.



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Let's Solve It