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The great yield reset

Bond ETFs and the generational opportunity in fixed income

Executive summary

A watershed moment in bond investing is occurring and the opportunity is profound. After last year — the most challenging bond market in decades — yields are back across most fixed income sectors. As a result, there are strong flows into fixed income assets, much of which are migrating into bond ETFs as investors adjust risk and recalibrate portfolios to higher yield levels. This new fixed income paradigm is accelerating bond ETF adoption — a trend that paradoxically gathered speed in 2022 despite the challenging bond market and was most recently evident in March 2023 when volatility was triggered by concerns about the banking sector. Once again, investors turned to bond ETFs to adjust their portfolios and navigate market uncertainty, reinforcing the more traditional "flight to safety" role of bonds.

Not only has it been true that "yields are back" but the notion of "bonds as ballast" has begun to reappear after going missing in action, particularly during 2022.[1] The role of bonds as a potential diversifier to riskier assets is returning as a fundamental element of portfolio construction. While fixed income investors have a range of vehicle choices, the desire for transparency, access, liquidity and efficiency is driving ever greater numbers to turn to bond ETFs to retool and refocus portfolios as they navigate this rapidly changing bond market. Global bond ETF assets are approaching $2 trillion; all of this reinforces our belief that global bond ETF assets will reach $6 trillion by 2030, and likely even sooner.

1 Based on weekly returns, the correlation between the S&P 500 & the Bloomberg U.S. Treasury Index was -0.37 from 12/31/2002-12/31/2021. The same correlation was +0.24 from 12/31/2021-12/31/2022.

Investors are turning to bond ETFs to retool portfolios, driven by higher yields and a desire for transparency, access, liquidity and efficiency.

Authors


Stephen Laipply
Global Co-Head of iShares Fixed Income ETFs


Brett Pybus, CFA
Global Co-Head of iShares Fixed Income ETFs


Darren Wills
APAC Head of iShares Fixed Income ETFs


Casie Maurer
Global Head of iShares Product Commercialization


Alex Claringbull, CFA
Global Head of Indexed Fixed Income & LDI

Key themes we discuss in this piece:

1

A generational opportunity

- The new regime of greater macro and market volatility seems poised for a long stay and demands a new investment playbook, with more frequent asset allocation changes.
- We saw this volatility play out in Q1, and investors once again turned to bond ETFs to navigate the market turmoil.
- For investors who have had to look elsewhere for income over the past decade, the great yield reset has transformed the strategic opportunity in fixed income.

2

Time for a portfolio rethink

- We believe the average multi-asset portfolio is under-allocated to fixed income, calling for a rethink of strategic asset allocation.
- Investors who want to increase fixed income allocations should act now — a 'wait and see' approach poses further challenges and potential missed opportunities.
- A blend of index and active exposures can offer investors transparency and the opportunity to be nimble in their fixed income allocation.

3

Getting active with index

- Bond ETFs are made for these times, enabling investors to make rapid tactical asset allocation changes, improve operational efficiency and enhance the liquidity of fixed income portfolios.
- As a result, bond ETFs have become an important tool for active managers, who are required to move nimbly in rapidly changing market conditions.

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A generational opportunity

Out with the old, in with the new regime

Gone are the days of the Great Moderation, the four-decade period of largely stable inflation and interest rates. Instead, the new regime of greater macro and market volatility is playing out. The trade-off central banks face — suppress economic activity or live with higher inflation in a world shaped by supply — is front and center. Their projections for higher inflation and slowing growth suggest they are waking up to this trade-off now. Persistent inflation means we expect rates to stay higher for longer. Although some production constraints could ease as spending normalizes, we see long-term trends keeping production capacity constrained and cementing the new regime of higher macro and market volatility. For example, aging populations mean continued worker shortages in many major economies, while persistent geopolitical tensions are rewiring globalization and supply chains.

Volatility in rate markets reached post-Global Financial Crisis highs in March 2023, as bonds — particularly U.S. Treasuries (USTs) — experienced significant moves amid stress in the global banking sector. At the height of the volatility, between March 13, 2023, and March 17, 2023,[2] we witnessed:

1. The 2-year U.S. Treasury yield experienced its largest one-day decline since 1982.
2. The difference between 2- and 10-year yields steepened the most since the 1980s.
3. Interest rate volatility reached its highest level since the Global Financial Crisis.
4. U.S. Treasury bond liquidity reached levels last seen in March 2020.

2 Source: Bloomberg. Interest rate volatility measured using the ICE Bofa MOVE Index while U.S. Treasury liquidity is measured using the Bloomberg U.S. Government Securities Index.

During the March week of volatility, U.S. Treasury ETFs saw record weekly inflows of $11B, with iShares ETFs accounting for 60%.[3] Additionally, trading volumes spiked across iShares U.S. Treasury exposures as investors turned to Treasury ETFs to help navigate volatile market conditions. Across the suite, trading volumes were more than 300% higher than their averages over the prior three years.[3]

This wasn't the first time investors had turned to ETFs to help manage volatility: The efficiency and liquidity of bond ETFs supercharged investor adoption in 2022 amid a historically fraught and complex market environment, and we saw a similar phenomenon in 2020, when Covid-induced market turmoil spurred investors to use bond ETFs for rapid asset allocation changes.

Bond ETF liquidity has been on the rise for years (Figure 1), alongside a similar climb in bond market volatility (Figure 2). The two trends are not a coincidence, and we see reason to believe both will continue, potentially offering a more persistent catalyst for bond ETF adoption.

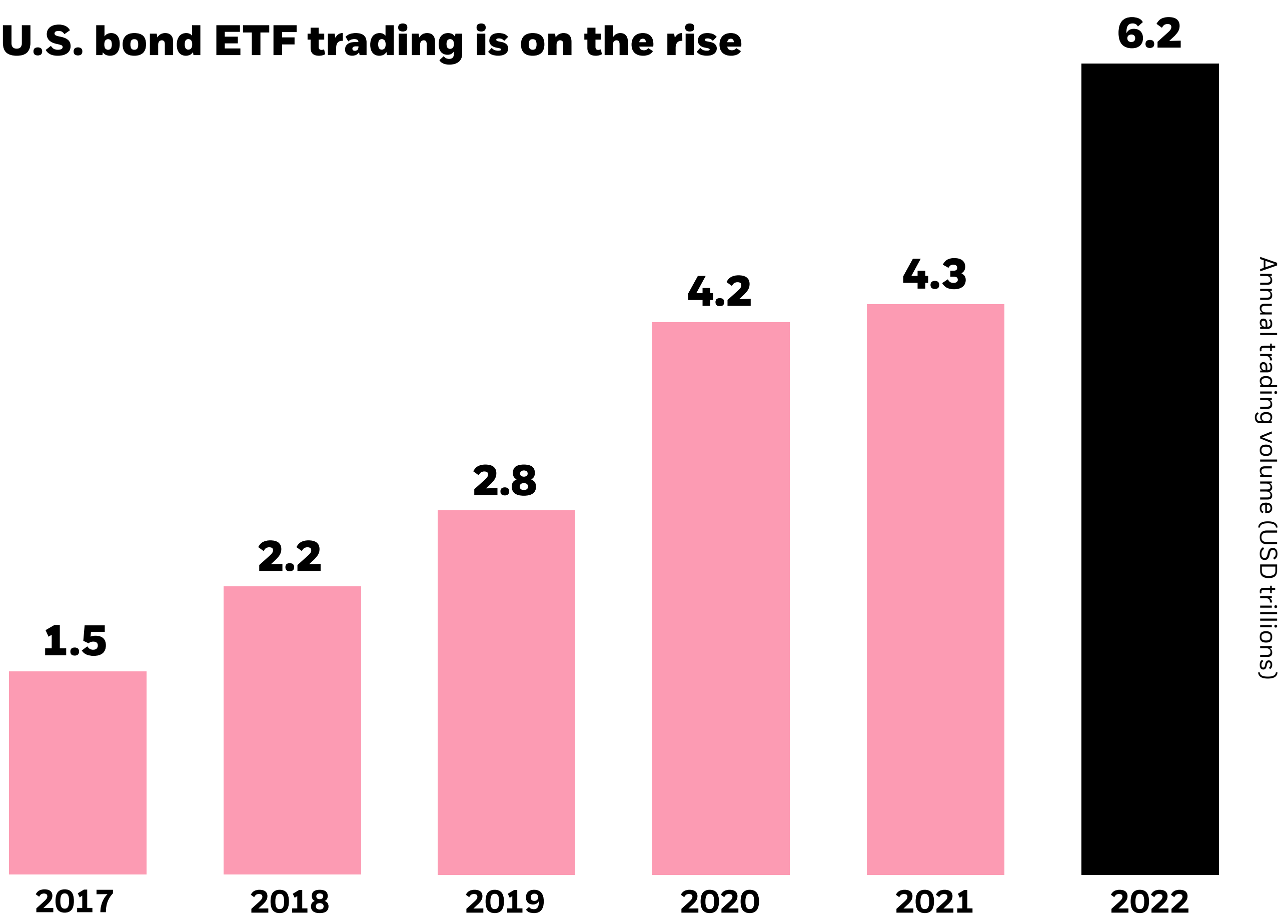
During 2022's historically complex market environment, investors traded a record

$6.2T

of U.S. bond ETFs.

Figure 1: Annual U.S. bond ETF trading volumes, 2017-2022 (USD trillions)

U.S. bond ETF trading is on the rise

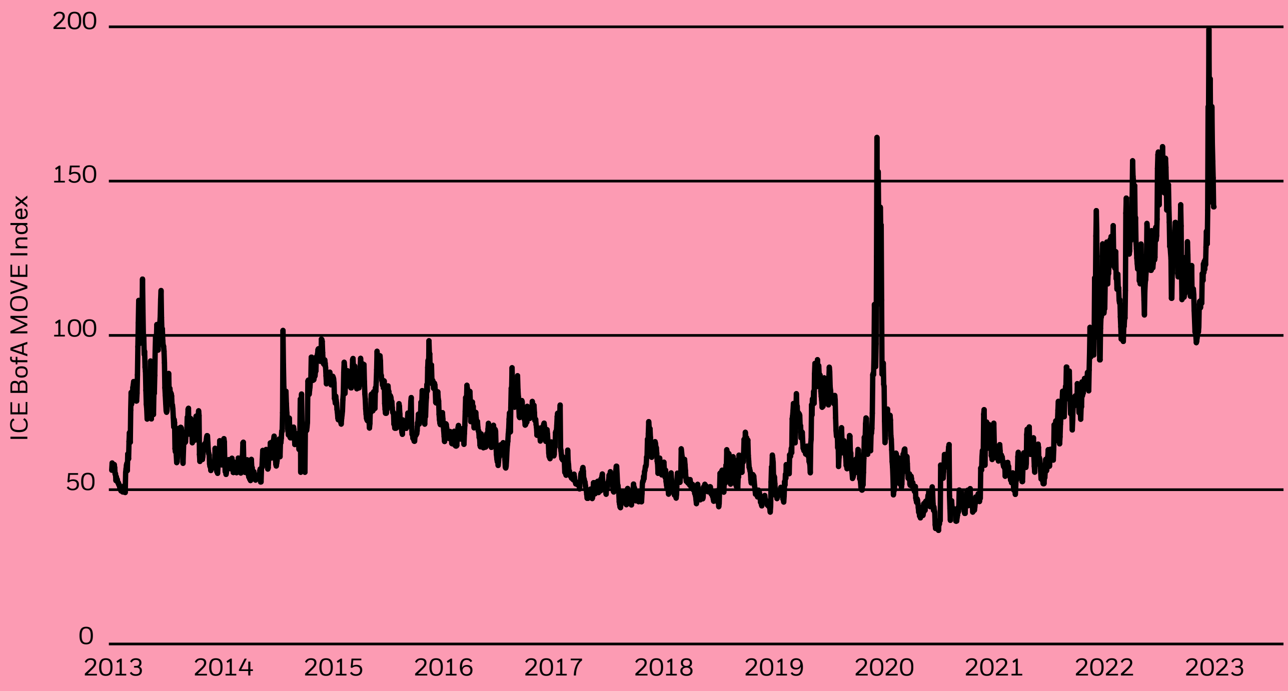


Source: Bloomberg, as of 12/31/22. There can be no assurance that an active trading market for shares in an ETF will develop or be maintained.

3 Source: BlackRock, Bloomberg as of 3/17/2023.

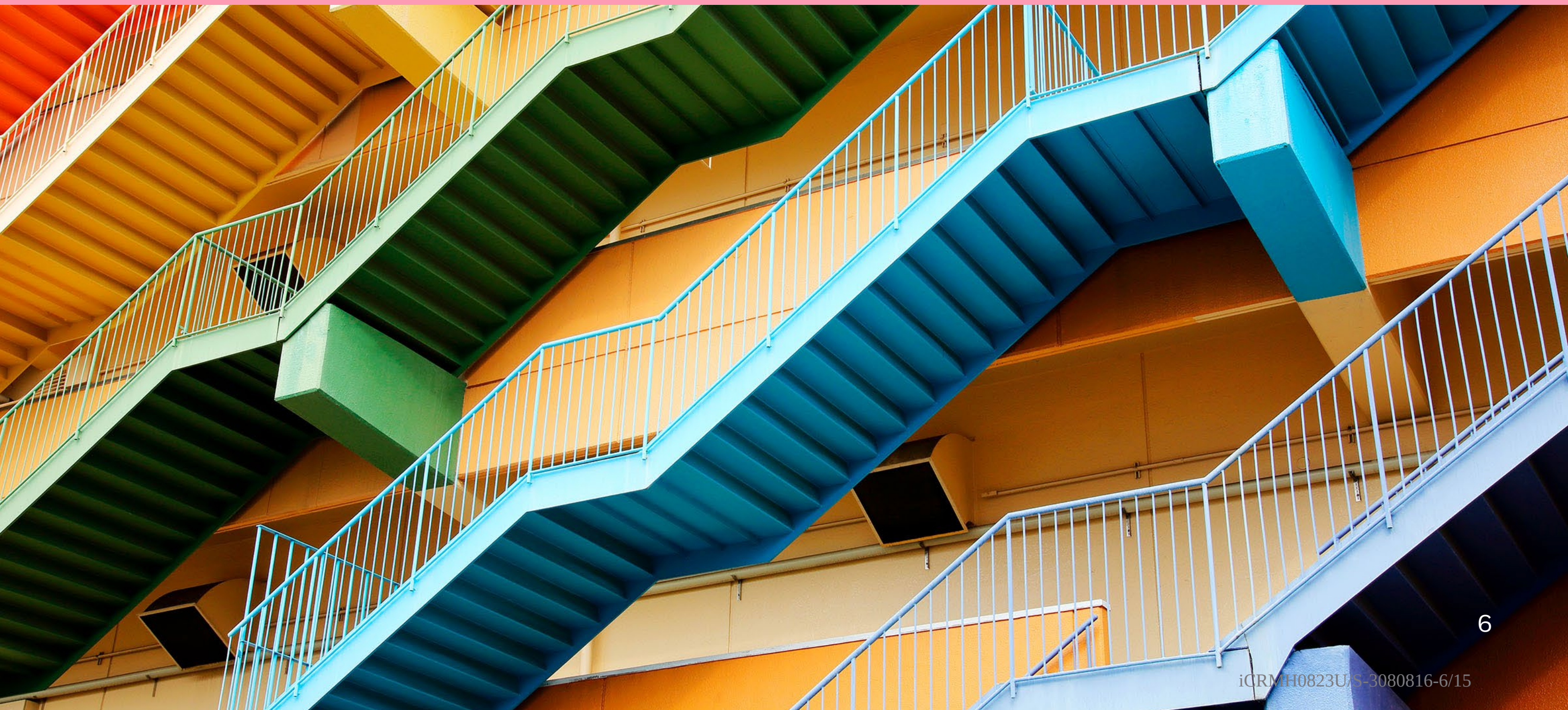
Figure 2: MOVE Index of U.S. Treasury volatility, March 2013–March 2023

Interest rate volatility is on the rise



Source: Bloomberg as of 3/31/2023.

The rise in bond ETF liquidity and bond market volatility may offer a more persistent catalyst for bond ETF adoption.

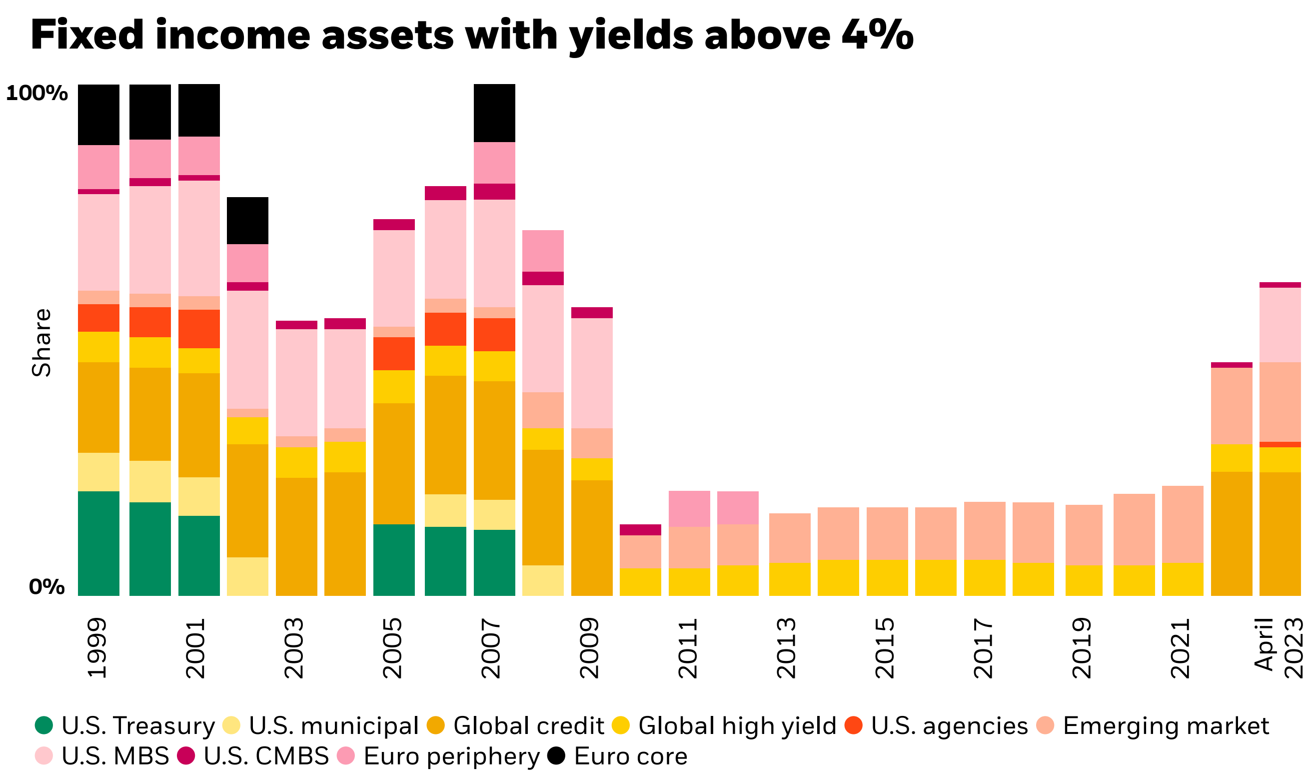


The great yield reset

The fixed income market rout of 2022 — which led to bond yields not seen in years — is a tale well told at this point. Suffice to say that investors who for years sought yields and returns by overweighting equities, going down in credit and liquidity were suddenly gifted 2-year U.S. Treasuries yielding more than 4.75%.[4] Figure 3 illustrates the seismic shift that has occurred, with over 60% of fixed income sectors now yielding 4% or more — after nine years in which only EM and high yield debt offered such yield levels.

High yield bonds in 2021 had a lower yield (3.75%) than what risk-free savings accounts have today (4%).

Figure 3: Historical fixed income market yields, 1999-2023

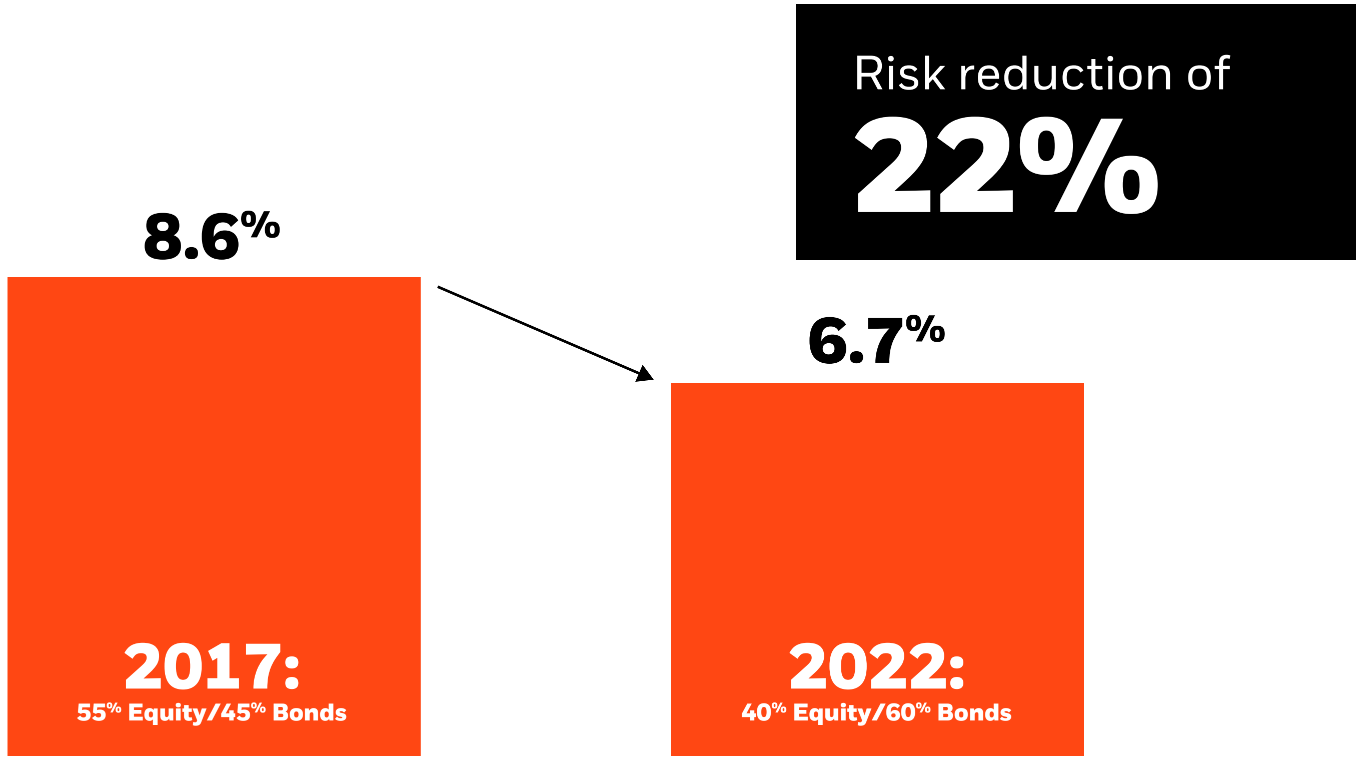


Source: BlackRock Investment Institute, with data from Refinitiv Eikon, May 2023. The bars show market capitalization weights of assets with an average annual yield over 4% in a select universe that represents about 70% of the Bloomberg Multiverse Bond Index. **U.S. Treasury** represented by the Bloomberg U.S. Treasury index. **Euro core** is based on the Bloomberg French and German government debt indexes. **U.S. agencies** represented by Bloomberg U.S. Aggregate Agencies index. **U.S. municipal** represented by Bloomberg Municipal Bond index. **Euro periphery** is an average of the Bloomberg Government Debt indexes for Italy, Spain and Ireland. **U.S. MBS** represented by the Bloomberg U.S. Mortgage Backed Securities index. **Global credit** represented by the Bloomberg Global Aggregate Corporate index. **U.S. CMBS** represented by the Bloomberg Investment Grade CMBS index. **Emerging market** combines the Bloomberg EM hard and local currency debt indexes. **Global high yield** represented by the Bloomberg Global High Yield index. Bankrate, risk-free savings accounts, as of Dec 2022. U.S. High Yield., Columbia Threadneedle as of Feb 2022. **Index performance is for illustrative purposes only. Index performance does not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.**

The "great yield reset" is resulting in far greater portfolio flexibility and could lead to better risk-adjusted outcomes, in our view. To illustrate, consider a simple hypothetical portfolio allocated between the S&P 500 Index and the Bloomberg U.S. Aggregate Bond Index. In 2017, an investor targeting a 7% return based on historical data might have allocated 55% to the S&P 500 and 45% to the U.S. Aggregate Bond Index. The historical volatility of such a portfolio would have been 8.6%. Due to the upward reset in bond yields in 2022 however, an investor might have targeted the same 7% return while reducing equity exposure to 40% and increasing U.S. Aggregate bond exposure to 60%. The historical volatility of this portfolio would be 6.7% — a reduction of 22%.[5]

Figure 4: Historical risk levels for hypothetical equity/bond portfolio targeting 7% return, 2017 vs. 2022

Seeking the same return with less risk



Source: Bloomberg 12/31/2002-12/31/2022. **Index performance is for illustrative purposes only. Index performance does not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results. This information should not be relied upon as research, investment advice or a recommendation regarding the Funds or any security in particular. This information is strictly for illustrative and educational purposes and is subject to change. This information does not represent the actual current, past or future holdings or portfolio of any BlackRock client.**

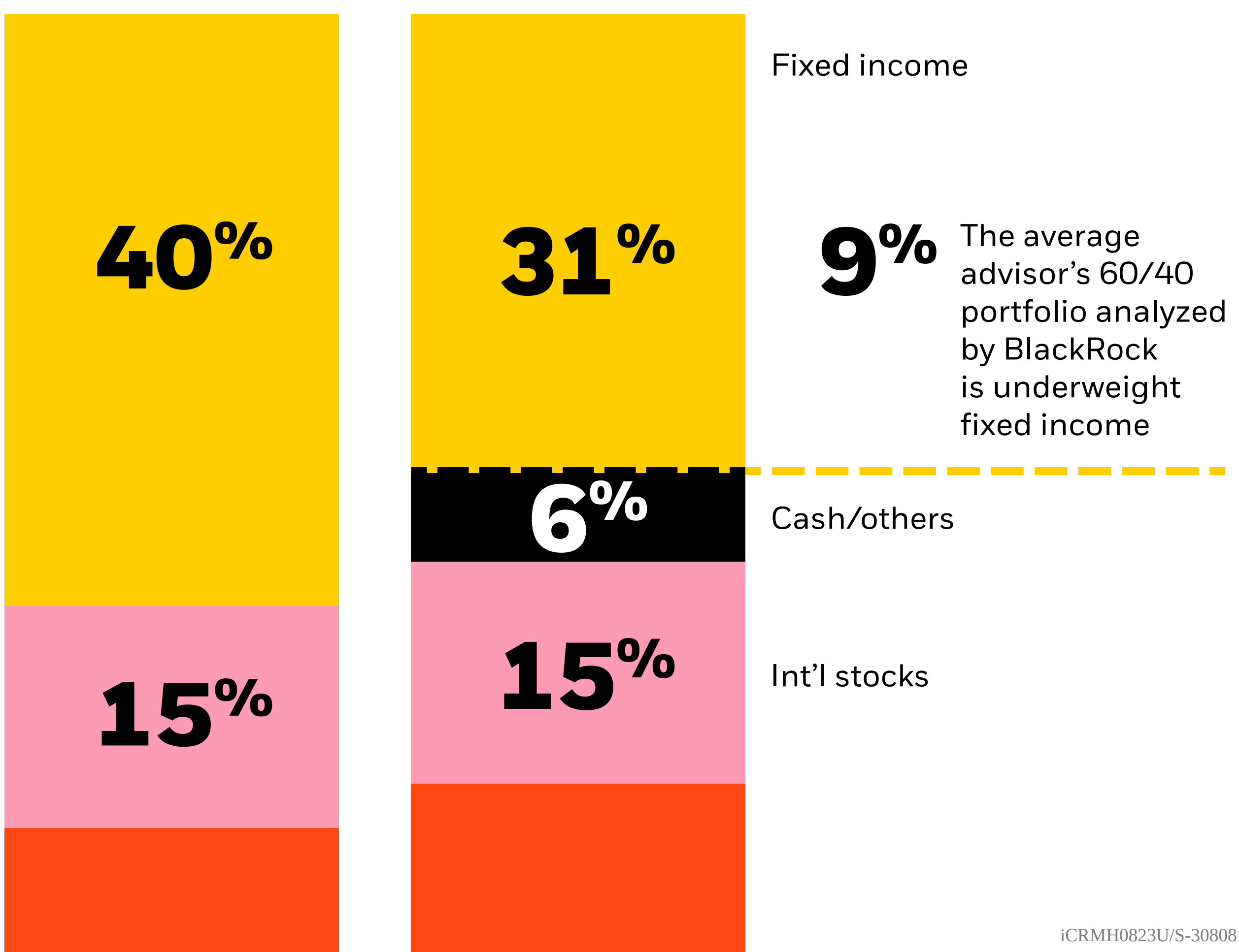
4 Source: Bloomberg, as of 12/31/22. **5** Average equity return and historical volatility based on monthly S&P 500 index returns from 12/31/2002-12/31/2022. Bond yields based on yield to worst of Bloomberg U.S. Aggregate Bond Index on 12/31/2017 and 12/31/2022. Historical bond volatility based on monthly Bloomberg U.S. Aggregate Index returns from 12/31/2002-12/31/2022. Source: Bloomberg 12/31/2002-12/31/2022.

Time for a portfolio rethink

Even after the surge in yields, we believe that multi-asset portfolios are under-allocated to fixed income (Figure 5). The upshot is an opportunity to revamp portfolio construction through a reallocation to fixed income: reducing equity overweights, moving up in credit quality and liquidity — all while diversifying and reducing aggregate portfolio risk.

Figure 5: BlackRock Portfolio Solutions Team's analysis of 5,417 advisor moderate model portfolios Aladdin® portfolio data.

Traditional advisor portfolios may be under-allocated to fixed income



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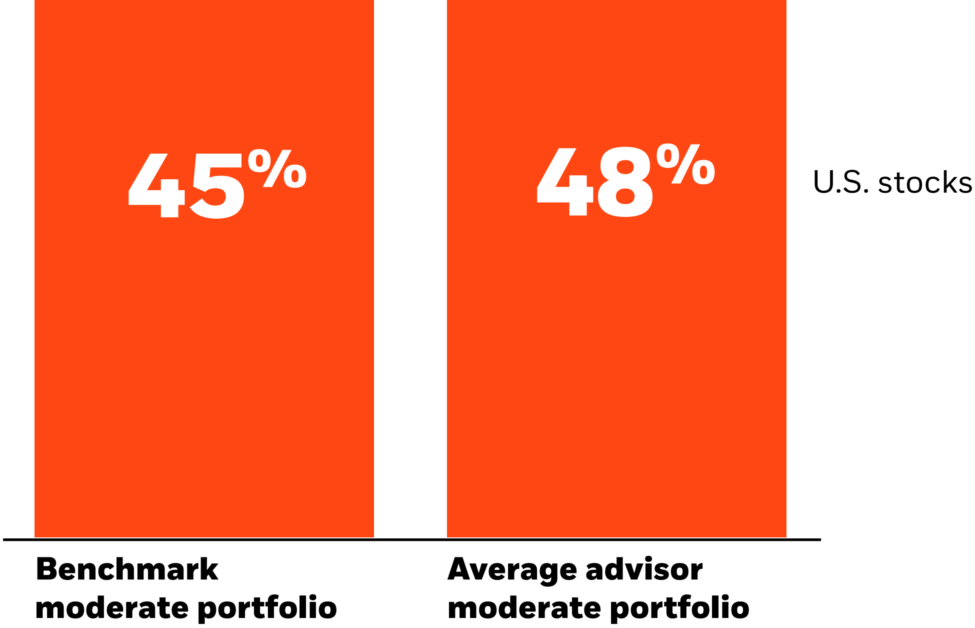

Sources: BlackRock, Aladdin. For illustrative purposes only. Data as of 9/30/22, based on 5, 417 portfolios. The benchmark moderate portfolio is comprised of the S&P 1500, ACWI ex-U.S. and BBG Universal indexes. These attributes are calculated for each portfolio as a weighted average of the underlying holdings. The portfolio-level metrics are then averaged in each risk profile cohort to arrive at the numbers presented in the table.

Blending index and active

Traditionally, investors often solved for their fixed income allocation through allocations to a small number of active managers. If a manager happened to be pursuing a strategy that became highly correlated with equities, the strategy could lead to even greater portfolio underperformance during risk-off periods.

To help generate greater portfolio income, fixed income fund managers may tilt to sectors such as high yield or lower quality securitized assets. Unfortunately, such a strategy can result in their fixed income allocation becoming more positively correlated with equities as opposed to providing diversification. As a result, many managers underperformed last year. Over the most recent 3- and 5-year periods, the average fund in the Morningstar "core plus" category was 67% and 55% correlated[6] with the S&P 500, respectively. For reference the Bloomberg U.S. Aggregate Bond Index was 50% and 36% correlated with the S&P 500 over the same periods.[7]

We believe the "active vs. passive" dichotomy is a long-outdated construct. In our view, a more robust approach combines elements of active and index: using low-cost index components to create a more diverse and predictable exposure, alongside an allocation to an active manager to pursue excess return. In a multi-asset portfolio, an investor may choose to hold a combination of government bonds, inflation-linked bonds, investment grade credit, high yield credit, emerging market and securitized debt index ETFs for more precise, diversified fixed income exposure while also holding an allocation to an unconstrained bond manager. Such a portfolio is shown in Figure 6:

6 Correlation measures how two securities move in relation to each other. Correlation ranges between +1 and -1. A correlation of +1 indicates returns move in tandem, indicates returns move in opposite directions, and 0 indicates no correlation. Correlation figures in text shown in percentages where 100% is equal to +1. **7** Source: Morningstar, BlackRock, Bloomberg as of 12/31/2022.

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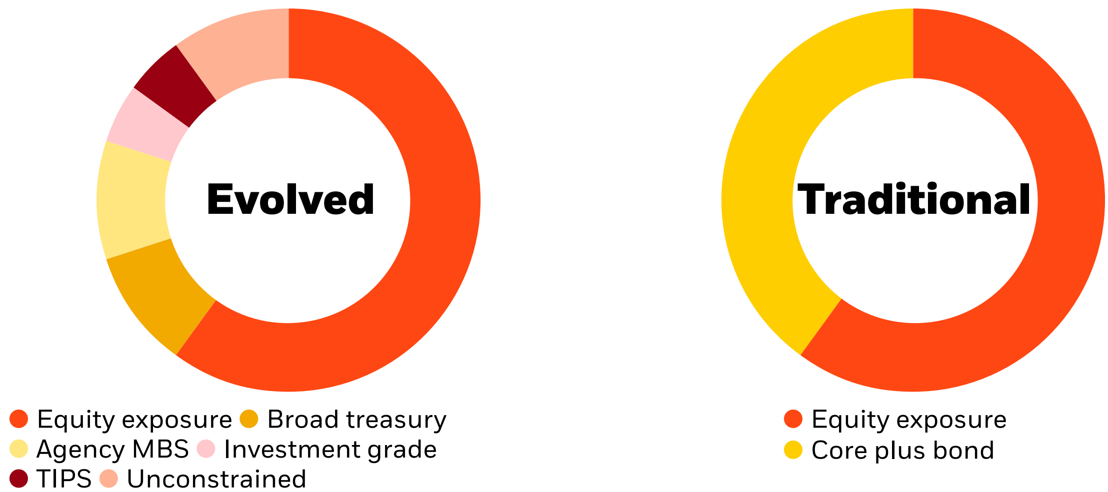
Figure 6: Evolving a traditional 60/40 portfolio through granular index exposures



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This approach offers greater transparency and the ability to be nimble through index building blocks, while still allocating to an unconstrained manager for potential alpha generation and access to sources of return that may be unavailable through index exposures (ideally this manager would exhibit low correlation with the other portfolio components). Figure 7 shows our framework for how to pair active and index allocations to help meet specific investment objectives. Investors should 1) consider the role that they want fixed income to play — income, capital preservation or equity diversification — and 2) allocate accordingly between active and low cost index exposures. Income portfolios will tilt more towards higher yielding exposures, capital preservation will tilt towards high quality shorter duration exposures and equity diversification will tilt towards longer duration high quality exposures.

Model portfolios, which are essentially recipes for asset allocation, are another example of evolved portfolios and tend to feature ETFs prominently due to their granularity, precision, and ease of use. Model portfolio AUM totaled $2.8T (across all asset classes) as of the end of 2021 and this figure has been growing at a 20% annual rate.[8]

The increased use of bond ETFs is also not strictly an index phenomenon, but rather a preference for a transparent and liquid vehicle that may help improve tax efficiency. In fact, 48 active bond ETFs representing $3.3B of assets were launched in 2022, reinforcing this trend.[9]

Figure 7: The BlackRock Bond Pyramid and Barbell

Meeting investment objectives with index and active

Step 1: Start with the BlackRock Bond Pyramid

Consider what role each fund plays, and then optimize your bond mix based on your larger asset allocation.

Step 2: Barbell each rung of your pyramid

Anchor your portfolio with low-cost ETFs and consider allocating your fee budget to flexible and alternative active strategies.

Beware of benchmark hugging active funds

For illustrative purposes only.

8 Source: Cerulli Report - US Asset Allocation Model Portfolios 2022. **9** Source: BlackRock Global Business Intelligence as of 12/31/2022.

"We are in a very interesting market that could shift at any moment. It is more important than ever to stay flexible and nimble and I have found that bond ETFs are a highly efficient way to reposition and take advantage of evolving market conditions."

– Rick Rieder, CIO of Global Fixed Income, BlackRock

Getting active with index

Bond ETFs: Made for these times.

The new playbook calls for more dynamic, granular and precise asset allocation adjustments, making liquidity and flexibility in implementation choices paramount to a successful strategy. Many investors have turned to bond ETFs as important tools to help them navigate the rapidly changing market conditions and efficiently access the fixed income market.

While most bond ETFs seek to track indices, traditional active fixed income managers have come to realize that bond ETFs can be used to help generate alpha or for efficiency gains in the following ways:

The new playbook calls for more dynamic, granular and precise asset allocation adjustments, making liquidity and flexibility in implementation choices paramount to a successful strategy.

Tactical asset allocation

Managers can use bond ETFs to rapidly scale into or out of exposures to take advantage of or hedge against rapidly changing market conditions — far more quickly and efficiently than trading individual bonds.

Liquidity sleeve

By using bond ETFs for a portfolio liquidity sleeve, managers can avoid having to sell individual bonds in conditions that can be far more costly — especially in stressed markets.

Operational efficiency

By aggregating hundreds or thousands of line items into a single vehicle, bond ETFs provide a high level of investment efficiency. Managers are relieved of the operational complexity of reinvesting cash flows from individual bonds or rebalancing the exposure to maintain duration targets. Bond ETFs can often be far more cost efficient to trade than individual bonds. As an example, LQD holds 2,000 investment grade bonds and can be traded for 1 bps in bid/ask spread vs. and average of 37.5 bps for the underlying basket.[10]

These benefits have not been lost on large and sophisticated institutional investors: 10 out of 10 of the largest global asset managers and 8 of the 10 largest U.S. insurance companies all use bond ETFs.[11]

10 Source: BlackRock as of March 31, 2023. **11** Asset Manager figures based on BlackRock analysis of SEC 13-F filings for U.S.; BlackRock analysis of self-reported holdings by asset managers in Europe and Asia. Top 10 global asset managers determined by Pensions & Investments in 2021. Insurance figures sourced from S&P Global Intelligence, BlackRock analysis of fillings with the National Association of Insurance Commissioners (NAIC) and the Securities and Exchange Commission.

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The modernization of the bond market powers ahead

We think bond ETFs will continue to drive — and benefit from — the modernization of the fixed income market. Over the past several years, bond ETFs and their infrastructure have been catalysts for change, helping to improve transparency and efficiency in the notoriously opaque and fragmented global bond market. Because of the evolution of the bond ETF creation/redemption mechanism (through which authorized participants are able to exchange portfolios of bonds for shares), investors are now able to trade large baskets of bonds — known as portfolio trades — instantaneously and at one price. Sourcing and pricing large numbers of bonds in the over-the-counter market would be quite challenging without bond ETFs and their infrastructure. In 2022, portfolio trading volumes grew by 24% y/y in investment grade and 2% in high yield.[12] Growth in bond ETFs and portfolio trades has resulted in advances in algorithmic pricing and electronic trading. Last year on average 40% of investment grade bonds traded electronically and 30% of high yield bonds traded electronically.[13] These innovations have benefited not only bond ETFs, but the bond market itself through enhanced transparency and fungibility between the OTC market and exchange.

12 Source: JPM U.S. Credit Market Liquidity: YE 2022 update, TRACE. **13** Source: Coalition Greenwich (as of 12/31/2022).

Conclusion

Bond ETFs' liquidity, efficiency and breadth of exposures have helped them gain widespread adoption as instruments for fixed income investment exposure and portfolio risk management. The market dynamics of the past three years — starting with the onset of the pandemic, followed by the great reflation and culminating in the great reset in yields — has resulted in significant amounts of assets shifting into bond ETFs. More than ever, investors are turning to bond ETFs to seek desired investment outcomes and to navigate rapidly and ever-changing market dynamics. The long-term, structural drivers of bond ETF adoption have only been accelerated by these events. This reinforces our belief that bond ETFs will continue to grow, reaching $6T in assets globally by 2030, while further cementing their role as a central and important part of the bond market itself.

Contributors

Anna Day
David Kurapka
Jim Miller
Jonathan Parker
Charlotte Tribley, CFA
Karen Veraa, CFA

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