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# De-Siloing Your Fixed Income Portfolio

The fixed income universe is remarkably diverse and complex. In our view, the standard practice of separating fixed income allocations into several asset-class silos not only prevents investors from investing in the relative value opportunities that result from this complexity, but actively contributes to them. We believe managing fixed income under one umbrella, with high flexibility over asset allocation, can enable investors to take advantage of the market's diversity and inefficiency.

In this paper, we present the case for a multi-asset approach to fixed income and credit, and argue in favor of allowing asset allocation to evolve primarily as a result of bottom-up credit analysis and security selection, rather than being determined solely from the top down.

# **Executive Summary**

- Different fixed income asset classes have exhibited wide dispersion in their periodic returns, and frequently change position in the "league table" of returns.
- Similar dispersion can be seen even within asset classes: six-month relative returns frequently diverge by 10 percentage points or more for different credit quality (e.g., CCC versus BB high yield) and for different regions (e.g., U.S. versus European high yield or U.S. high yield versus emerging markets debt).
- Further asset allocation opportunities are available via yield-curve positioning and capital-structure positioning (via hybrid securities).
- We believe this complexity results in mispricing and alpha opportunity, and that the practice of separating fixed income allocations into several silos and requiring often lengthy decision-making processes to make asset allocation adjustments to those silos not only prevents investors from taking advantage of mispricing, but actively contributes to it.
- We believe asset allocation should evolve primarily as a result of bottom-up credit analysis and security selection, rather than being solely determined from the top down: a predominantly top-down approach raises the likelihood that securities are selected only for the sake of filling the asset allocation buckets, creating unwanted idiosyncratic credit risk that needs to be diversified away and diluting exposure to the market's best opportunities.

The fixed income universe is more diverse than any other asset class. In addition to having the same industry and regional diversity that investors can find in the equity market, fixed income encompasses everything from cash and inflation-protected government securities to the equity-like risks embedded in, say, bank hybrid capital securities, CCC rated high yield and distressed debt.

That means different parts of the fixed income market behave very differently through investment cycles. This has led to low correlations and notable diversification benefits, but also meaningful opportunity to generate asset allocation alpha.

## Dispersion of Relative Performance at Asset-Class Level

We can see this in the calendar-year and quarterly returns of even the very simplified nine-asset-class model of the liquid fixed income universe set out in figure 1.

FIGURE 1. THE DIVERSITY AND ASSET ALLOCATION OPPORTUNITY IN FIXED INCOME Calendar-year total returns

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Munis	17.1%	9.7%	13.7%	28.2%	11.6%	10.2%	11.7%	8.1%	9.7%	60.6%	15.2%	11.8%
EMD	12.7%	8.4%	13.2%	22.2%	11.4%	5.8%	9.9%	7.3%	8.9%	29.8%	12.2%	11.2%
Agency MBS	11.9%	8.3%	10.8%	7.7%	9.4%	3.9%	5.3%	6.2%	3.6%	18.5%	11.8%	7.3%
ABS & MBS	9.5%	7.6%	10.7%	6.6%	5.8%	3.6%	5.1%	5.3%	0.8%	16.3%	7.4%	6.1%
IL Bonds	8.6%	5.5%	8.6%	6.2%	5.5%	3.3%	5.0%	3.9%	-4.0%	14.5%	5.2%	5.3%
Gov Bonds	8.1%	4.5%	8.6%	3.0%	4.8%	3.2%	4.4%	3.3%	-4.7%	8.9%	4.6%	5.2%
IG Credit	7.2%	4.4%	8.5%	2.6%	3.3%	3.1%	2.6%	2.7%	-12.0%	0.9%	3.6%	4.1%
Cash	6.5%	4.0%	1.9%	2.2%	3.0%	2.9%	0.9%	1.6%	-20.7%	0.9%	2.3%	3.1%
High Yield	-5.5%	3.5%	-2.1%	1.2%	1.5%	2.3%	0.3%	-0.8%	-27.1%	0.9%	0.3%	0.3%
	2042	2042	2044	2045	2046	2047	2040	2010	2020	2024	2022	2022
115 T NS 11	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High Yield	18.8%	7.1%	9.8%	3.6%	15.9%	10.3%	2.2%	15.0%	9.3%	5.3%	1.8%	12.4%
EMD	17.4%	0.6%	9.7%	1.2%	10.2%	7.6%	1.8%	14.0%	7.7%	2.9%	-7.2%	11.1%
IG Credit	10.8%	0.3%	8.4%	1.2%	10.2%	5.4%	1.4%	11.5%	6.3%	1.8%	-8.2%	8.2%
IL Bonds	7.5%	0.1%	7.8%	1.0%	5.7%	5.2%	1.1%	7.7%	5.7%	0.2%	-9.0%	6.5%
Munis	7.3%	-0.4%	7.4%	0.8%	3.0%	2.8%	1.0%	7.4%	5.3%	0.0%	-11.8%	5.5%
ABS & MBS	6.4%	-1.8%	4.0%	0.3%	2.7%	2.6%	-1.0%	5.9%	5.3%	-1.0%	-13.2%	5.3%
Gov Bonds	4.4%	-2.9%	3.1%	-0.2%	1.5%	2.1%	-1.7%	5.9%	5.2%	-1.1%	-14.6%	4.9%
Agency MBS	0.5%	-4.5%	2.5% 0.2%	-0.5%	0.7%	1.2%	-2.4% -4.3%	5.4% 2.5%	4.9% 1.0%	-1.8%	-17.7% -17.8%	3.9%
Cash	0.5%	-5.3%	0.276	-2.1%	0.470	1.170	-4.5 %	2.5%	1.070	-2.3%	-17.070	3.470
Quarter-over-quarter total returns												
	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
High Yield	0.7%	4.1%	2.0%	3.2%	0.2%	0.6%	0.9%	8.1%	3.3%	2.2%	1.4%	9.2%
Cash	0.0%	2.9%	0.2%	0.8%	-2.9%	-2.0%	-1.2%	5.0%	3.2%	1.5%	0.8%	7.6%
Munis	-0.4%	2.4%	0.1%	0.2%	-3.7%	-2.1%	-2.3%	4.0%	2.9%	1.4%	0.2%	7.1%
ABS & MBS	-0.7%	2.4%	0.0%	0.1%	-4.3%	-3.3%	-3.1%	2.9%	2.8%	0.0%	-0.6%	6.6%
Agency MBS	-1.8%	1.7%	0.0%	0.0%	-4.7%	-4.4%	-3.6%	1.2%	2.7%	-0.1%	-1.6%	5.7%
IL Bonds	-2.7%	1.2%	0.0%	-0.4%	-5.5%	-6.6%	-4.2%	0.9%	2.0%	-0.1%	-2.2%	5.2%
Gov Bonds	-3.1%	1.0%	-0.1%	-0.4%	-6.2%	-9.8%	-4.6%	0.8%	1.9%	-0.4%	-2.9%	3.9%
IG Credit	-3.3%	0.8%	-0.4%	-0.4%	-6.9%	-10.1%	-4.6%	0.1%	1.8%	-0.9%	-3.3%	3.6%
EMD	-4.5%	0.0%	-0.7%	-0.5%	-10.0%	-11.4%	-6.3%	-0.4%	1.3%	-2.1%	-3.8%	1.4%

Source: FactSet, Neuberger Berman. Total returns, unhedged. Data as of December 31, 2023. Indices used: ICE BofA Global High Yield, JPMorgan EMBI Global Diversified, ICE BofA Global Corporate, ICE BofA U.S. ABS & CMBS, ICE BofA U.S. Agency, ICE BofA U.S. Municipal Securities, ICE BofA Global Government, ICE BofA Global Inflation-Linked Government. Cash is represented by U.S. dollar 3-month Libor.

Every asset class has been top and bottom of the calendar-year league except global government bonds (which has never been the best performer) and global investment grade credit (which has never been the best or the worst performer). For the past two years of quarter-over-quarter performance, every asset class has had at least one quarter either at the top or bottom of the league, except agency MBS and global investment grade credit.

In short, asset allocation opportunity has been abundant over this 24-year history, and the dispersion of returns suggests an abundance of alpha-generating opportunity for those investors willing to shift risk exposures dynamically.

# Wide Dispersion of Relative Performance at Sub-Asset Class Level

Let's look a little deeper into this cyclicality and dispersion.

It is not surprising to see, in figure 1, that high yield bonds and emerging markets debt often find themselves close together either at the top or bottom of the league each year, or that investment grade credit and municipal bonds often find themselves close together in the middle of the pack. These are not iron laws, but they do begin to delineate some intuitive patterns and correlations in the apparent complexity of the performance history.

Move down a level, however, and complexity is quickly reintroduced.

Figure 2 shows how, even within U.S. high yield, over six-month periods the returns of the lowest- and highest-rated bonds quite frequently diverge by 10 percentage points. They have diverged by 20 percentage points or more during four periods since 1997.

# FIGURE 2. TACTICAL ALLOCATION OPPORTUNITIES BY CREDIT QUALITY

Rolling six-month outperformance, total returns, U.S. high yield CCC & lower over BB



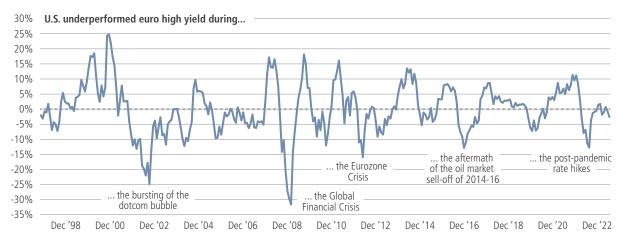
Source: FactSet, Neuberger Berman. Data as of March 15, 2024. Indices used: ICE BofA U.S. High Yield Index (BB), ICEBofA High Yield Index (CCC and Lower).

Figures 3 and 4 show the same six-month return comparisons for different regional markets.

U.S. and European high yield markets differ quite markedly in terms of their sector constituents and their average credit quality—and that shows up in their relative performance. A 10-percentage-point divergence of six-month returns was almost the norm for much of the period before 2013. It has occurred during four periods even in the low-volatility environment since then. Note also that this divergence does not include currency volatility, as the returns shown have been hedged to the U.S. dollar.

## FIGURE 3. TACTICAL ALLOCATION OPPORTUNITIES BY REGION—U.S. VERSUS EUROPE

Rolling six-month outperformance, total returns, U.S. high yield over euro high yield (hedged to USD)



Source: FactSet, Neuberger Berman. Data as of March 15, 2024. Indices used: ICE BofA U.S. High Yield Index, ICE BofA Euro High Yield Index (USD Hedged).

Because U.S. high yield and emerging markets debt are often considered to compete for the same allocation budget in fixed income portfolios, we show their relative six-month returns, too. Interestingly, except for the period around the Russian debt default in 1998, the relative performance of emerging markets debt against high yield bonds closely tracks that of low-rated high yield against high-rated high yield, replicating similar extremes of divergence, but also hinting at the crudity with which investors price risk in very different markets.

FIGURE 4. TACTICAL ALLOCATION OPPORTUNITIES BY REGION—DEVELOPED VERSUS EMERGING MARKETS Rolling six-month outperformance, total returns



Source: FactSet, Neuberger Berman. Data as of March 15, 2024. Indices used: ICE BofA U.S. High Yield Index, JPMorgan EMBI Global Diversified Index, ICE BofA U.S. High Yield Index (BB), ICEBofA High Yield Index (CCC and Lower).

Duration adds a further dimension for diversification and performance dispersion. Figure 5 shows that, even within the same asset class, with an almost identical U.S. investment-grade credit profile, the six-month returns of bonds with fewer than five years to maturity frequently diverge from bonds with longer to maturity by two to five percentage points.

## FIGURE 5. TACTICAL ALLOCATION OPPORTUNITIES BY DURATION

Rolling six-month outperformance, total returns, shorter-duration over longer-duration credit



Source: FactSet, Neuberger Berman. Data as of March 15, 2024. Indices used: ICE BofA U.S. Corporate Index (1-5 Years), ICE BofA U.S. Corporate Index (5-10 Years).

Finally, let's consider different parts of the corporate capital structure.

Here, we are looking at hybrid securities, which are bonds with some equity-like characteristics. Corporate hybrids, for example, pay coupons like bonds and tend to be priced as if they will be "called"—that is, repaid, like a standard bond at maturity—on the first date possible. Like equity, however, they are often perpetual, and can be left outstanding beyond their first call date; and like dividends, their coupon payments can be deferred without a default. Accordingly, credit rating agencies treat them as though they were half equity and half senior debt.

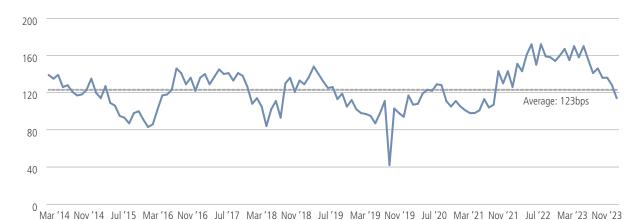
It is unusual for issuers to suspend hybrid coupons or leave callable hybrids outstanding because suspending coupons is reputationally damaging, and failing to call usually triggers a punitive coupon reset and the loss of the credit rating agencies' half-equity treatment. We are aware of only one instance of a hybrid extension by an investment-grade issuer, and no investment-grade issuer has suspended a coupon (hybrid issuers tend to be high-quality, investment-grade names).

Nonetheless, the spread between senior investment-grade bonds and corporate hybrid securities can be seen as proxy for the perceived risk of extensions and coupon suspensions. As figure 6 suggests, the low incidence of missed coupons and extensions makes it relatively modest, overall, but it is wide enough to be attractive and, occasionally, a more pronounced opportunity opens up.

As the wide spread through 2022 and 2023 indicates, these opportunities often coincide with concerns about higher interest rates. If the yield paid on new senior bonds has moved higher, investors tend to think that this could incentivize issuers to leave their hybrids outstanding rather than refinance them with a new hybrid or senior bond. However, because the market yield of senior bonds has never been higher than the implied punitive new yield for extended hybrids, and because the equity content is so valuable, the incentive to extend has never been decisive, and it has always ultimately been beneficial to collect any elevated extension-risk premium.

## FIGURE 6. FLUCTUATING "EXTENSION RISK" CREATES OPPORTUNITY IN HYBRID SECURITIES

Average non-financial hybrid security spread-to-worst over average senior corporate bond spread to worst



Source: FactSet, Neuberger Berman. Data as of March 15, 2024. Indices used: ICE BofA Global Hybrid Non-Financial Corporate Index, ICE BofA Global Corporate Index.

# The Disadvantages of Managing Fixed Income in Silos

In our view, these performance dispersions result from bond markets often failing to price in the complexity and crosscurrents inherent in the asset class. These failures are partly due to the fragmentation of those markets. When different fixed-income sectors are managed in silos, as they so often are, many of the risk and pricing signals coming from sectors outside one's silo get missed. That can lead to fixed-income asset allocation remaining static and suboptimal at the portfolio level, but also within each sector silo.

As such, we believe the practice of separating fixed income allocations into several silos (and requiring often lengthy decision-making processes to make asset allocation adjustments to those silos) not only prevents investors from taking advantage of mispricing, but actively contributes to it.

We think that makes a strong case for de-siloing fixed income by managing it in multi-asset mandates, and then giving those mandates wide ranges for potential allocations.

# Asset Allocation From the Bottom Up

That said, a fully flexible, "under-one-umbrella" approach to fixed income investing does introduce a new set of risks, relative to maintaining a broadly diversified but static allocation.

The most significant is the risk of making "big bets" on or against credit "beta" or some individual credit sector. We think that risk is amplified further if those bets are informed solely or predominantly by a top-down, macro outlook.

That top-down outlook could be wrong, of course. In addition, an approach like that often ends up diluting some of the relative-value opportunities that a multi-asset approach to fixed income is supposed to identify. This is because a strategy that determines asset allocation solely from the top down is more likely to select securities only for the sake of filling the asset allocation buckets, creating unwanted idiosyncratic credit risk that needs to be diversified away.

In our view, while a top-down outlook should be part of the process, managing multi-asset fixed income is primarily about actively seeking idiosyncratic instances of attractively valued quality. We think a portfolio should be well diversified in terms of its exposures to credit sectors, rating bands, regions and curve positioning, but not overdiversified in terms of issuers or securities.

For that reason, we see real advantage in having credit research done by experienced sector specialists, and allowing those sector specialists to select their "best-in-class" securities for a multi-asset class portfolio.

This is not the same as managing in asset-class silos: in a well-integrated credit research team, those bottom-up analyses will be informed by the details that every researcher picks up from the securities and sectors they cover; and every security's value should stack up relative to that of every other opportunity, regardless of sub-sector or asset class, on a genuine "apples-to-apples" basis. However, it does imply that asset allocation would be primarily determined by the number of individual investment opportunities identified by bottom-up analysis and the level of conviction behind them.

We think this distinction is most important during down markets. Having confidence in the fundamental quality and value of a "best-in-class" credit tends not only to mitigate its potential downside, but also to facilitate holding onto a position through periods of volatility and uncertainty.

Moreover, confidence in a particular issuer can underpin an investor's decision to add incremental exposure as the market goes down, by adding to an existing position, or perhaps by extending credit duration by allocating to the issuer's longer-dated securities or hybrid securities. Combined, these kinds of tactical decisions, based on fundamental credit analysis, can help to limit exposure to the market downside while maintaining exposure to the recovery.

## Fixed Income Under One Umbrella

In summary, we believe the sheer diversity of the fixed income universe means that it always contains attractive relative value opportunities at the individual securities level and the asset class and sub-asset class levels.

In our view, the practice of separating fixed income allocations into several silos not only prevents investors from investing in these relative value opportunities, but actively contributes to them. We believe managing fixed income under one umbrella, with high flexibility over asset allocation, can enable investors to take advantage of the persistence of traditional, static approaches to the market.

That said, we also think some approaches to multi-asset fixed income investing are more effective than others. Because we believe the most effective way to manage portfolio risk is to identify individual securities in which we have high conviction, we argue that investors should be wary of approaches that determine asset allocation solely or predominantly from the top down, and are then obliged to diversify a lot of unwanted idiosyncratic credit risk. Instead, we believe asset allocation should primarily be a result of bottom-up credit selection, determined by the number of opportunities a team of analysts identify, their level of conviction in them, and an "apples-to-apples" assessment of their value relative to all other opportunities in every other asset class and sub-asset class.

#### **Index Definitions**

The ICE BofA Global High Yield Index tracks the performance of USD, CAD, GBP and EUR denominated below investment grade, but not in default, corporate debt publicly issued in the major domestic or Eurobond markets, and includes issues with a credit rating of BBB or below, as rated by Moody's and S&P.

The JPMorgan Emerging Markets Bond Global Diversified Index (EMBI GD) includes U.S. dollar-denominated Brady bonds, Eurobonds, and traded loans issued by sovereign and quasi-sovereign entities.

The ICE BofA Global Corporate Index measures the market capitalization-weighted performance of public debt of investment-grade corporate issuers, issued and denominated in their own domestic market and currency.

The ICE BofA U.S. ABS & CMBS Index tracks the performance of U.S. dollar-denominated investment grade fixed and floating rate asset backed securities and fixed rate commercial mortgage backed securities publicly issued in the U.S. domestic market.

The ICE BofA U.S. Agency Index tracks the performance of U.S. dollar-denominated non-subordinated U.S. Agency debt issued in the U.S. domestic market.

The ICE BofA U.S. Municipal Securities Index tracks the performance of U.S. dollar-denominated investment grade tax exempt debt publicly issued by U.S. states and territories, and their political subdivisions, in the U.S. domestic market. Qualifying securities must have at least one year remaining term to final maturity, at least 18 months to final maturity at the time of issuance, a fixed coupon schedule and an investment grade rating (based on an average of Moody's, S&P and Fitch).

The ICE BofA Global Government Index measures the market capitalization-weighted performance of public debt of investment-grade sovereign issuers, issued and denominated in their own domestic market and currency.

The ICE BofA Global Inflation-Linked Government Index tracks the performance of inflation-protected securities issued by sovereigns in their own currency, with a minimum term to maturity of at least one year.

The ICE BofA U.S. High Yield Index (BB) tracks the performance of BB rated securities included in the ICE BofA U.S. High Yield Index.

The ICE BofA U.S. High Yield Index (CCC and Lower) tracks the performance of securities rated CCC or lower that are included in the ICE BofA U.S. High Yield Index.

The ICE BofA U.S. High Yield Index tracks the performance of below investment grade, but not in default, U.S. dollar-denominated corporate bonds, and includes issues with a credit rating of BBB or below, as rated by Moody's and S&P, greater than one year of remaining maturity and a minimum amount outstanding of \$100m.

The ICE BofAML Euro High Yield Index tracks the performance of below investment grade, but not in default, euro-denominated corporate bonds, and includes issues with a credit rating of BBB or below, as rated by Moody's and S&P.

The ICE BofA US Corporate Index (1-5 Years) measures the market capitalization-weighted performance of public debt of investment-grade corporate issuers, issued and denominated in U.S. dollars, with between one and five years to maturity.

The ICE BofA US Corporate Index (5-10 Years) measures the market capitalization-weighted performance of public debt of investment-grade corporate issuers, issued and denominated in U.S. dollars, with between five and 10 years to maturity.

The ICE BofA Hybrid Non-Financial Corporate Index tracks the performance of investment grade non-financial hybrid corporate debt publicly issued in major domestic and Eurobond markets.

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