

Bond Compass

Barbelling Credit and Defensives

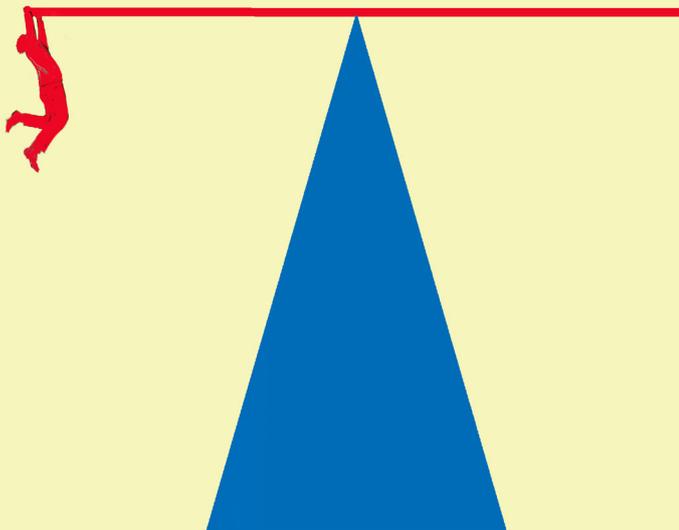
Q4 2021

04 **Investor Sentiment: What,
Me Worry?**

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but Average**

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Barbelling Credit
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A Leader in Fixed Income Index Investing

\$608*

billion in indexed
fixed income assets

The Scale to Specialise

- State Street Global Advisors' global 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

25

years of
bond index
investing
experience

Proven Track Record

- Our first fixed income fund launched in 1996
- More than 100 fixed income professionals dedicated to conducting research, managing risks and costs, and supporting our clients

100+

fixed income
index strategies

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

* State Street Global Advisors, as of September 30, 2021.

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

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Flows: What, Me Worry?

A snapshot of global fixed income flows, holdings and valuations, based on data provided by State Street Global Markets.*

* The fixed income flows and holdings indicators produced by State Street Global Markets, the investment, research and trading division of State Street Corporation, are based on aggregated and anonymised custody data provided to it by State Street, in its role as custodian. State Street Global Advisors does not have access to the underlying custody data used to produce the indicators.

Fixed Income Flows and Holdings

State Street Global Markets builds indicators of aggregated long-term investor behavior in fixed income markets from a substantial subset of \$10 trillion worth of fixed income assets under custody and administration at State Street.[†] This captures behavioral trends across tens of thousands of portfolios and is estimated to cover just over 10% of outstanding fixed income securities globally.

Not Yielding to Tiny Tantrums

Fixed income markets are currently weighing several potential peaks — peak growth, peak inflation (maybe) and peak policy support (likely). Having leapt higher throughout the year, US growth expectations are finally normalizing following a quarter of largely disappointing activity data. While an expected growth rate of 5.9% (the current consensus) is still high historically, it is already much lower than the 7% that the US Federal Reserve (Fed) projected last quarter.

In contrast, adjustments to inflation forecasts have been less bond friendly. Peak inflation is now projected for the coming quarter, but the transitory inflation narrative cannot be taken for granted, a fact that policymakers are gradually adjusting to. While the Fed has hinted about when its asset purchases most likely will end, it has retained some flexibility about when it will begin tapering, and projections of actual interest rate hikes have been brought forward.

Together, this has created something of a mixed backdrop for fixed income markets. Long-term investor demand for US Treasuries across the curve has been below average throughout Q3, although we note it improved toward the end of the quarter. Interestingly, this stands in contrast to demand for European sovereign debt where, with the exception of Spanish bonos, demand has been in the top quartile of past flows. This is all the more notable given that Europe is experiencing a small inflation scare of its own and at least part of the European Central Bank's (ECB) support for fixed income markets, the Pandemic Emergency Purchase Programme (PEPP), is set to wind down in Q1 2022. Perhaps with their now symmetric but still singular inflation target, as well as a more tepid growth outlook, European markets are viewed as a potentially safer sovereign fixed income.

As clear as the preference for European over US sovereign debt has been in the past quarter, it is also impressive how strong demand for riskier areas of fixed income remains. For all the macro uncertainty about peak growth, inflation and policy, demand for US high yield was in the top quartile once again and inflows into European corporate debt were even stronger. Interestingly, this demand for what yield remains has not yet extended to emerging market (EM) sovereign debt due to regional and inflation nuances that we will discuss.

In summary, a quarter that could have been extremely uncomfortable for fixed income — with taper talk, inflation scares and potential credit risks in emerging markets, in particular — has ended with still relatively robust demand from institutional investors.

[†] State Street Form 10-K, as of December 31, 2020.

Q3 2021 Flows & Holdings

Weakest flow/lowest holding over the last five years Median Strongest flow/largest holding over the last five years

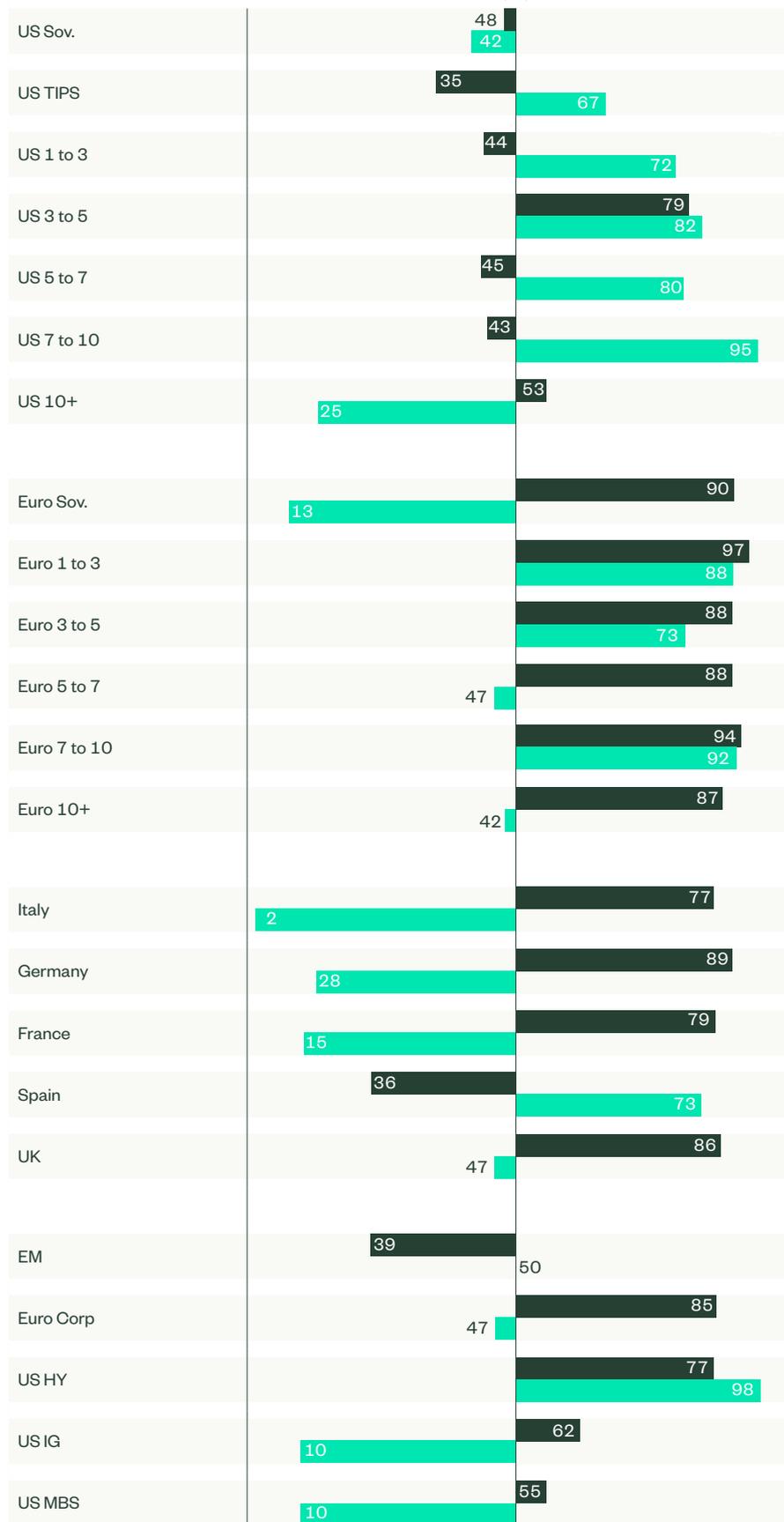
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ 90-Day Flows

■ Holdings*

These metrics are generated from regression analysis based on aggregated and anonymous flow data in order to better capture investor preference and to ensure the safeguarding of client confidentiality. The figures are shown as percentiles, expressing the flows and holdings over the last quarter, relative to the last five years. The benefit of this approach is that it provides perspective on the size of flows and holdings compared to their historical trends, whereas a single, dollar figure provides less context.

For more information please visit globalmarkets.statestreet.com

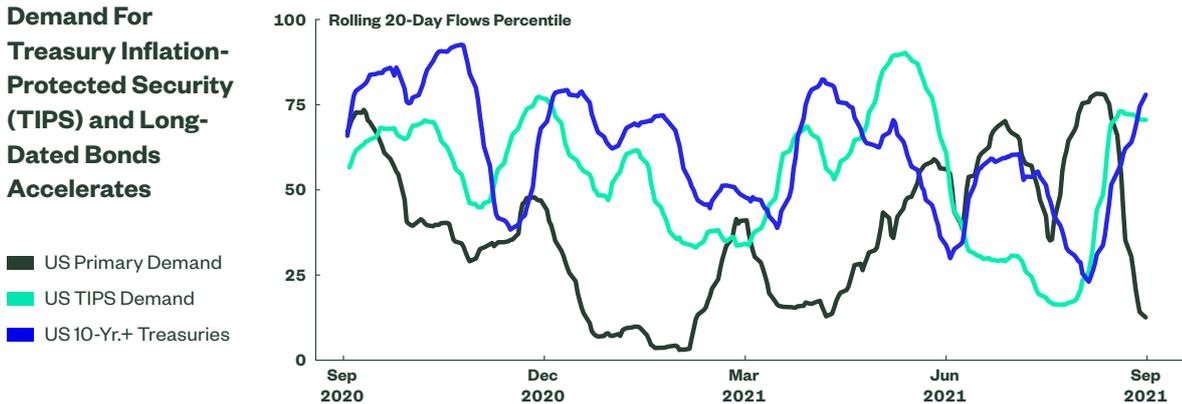


Source: State Street Global Markets, as of 30 September 2021. Flows and holdings are as of the date indicated. They should not be relied upon thereafter. *As at quarter end.

Trouble for US Treasuries?

Despite the environment for a potentially more serious bond market dislocation, long-term investor demand for Treasuries across the quarter was not significantly below par. However, there was some variation. And in a perhaps more hopeful sign for Q4, demand for long-dated bonds accelerated sharply in September, suggesting the additional rate hikes appearing in the Fed's dot plot have not made investors too wary of duration risk. That doesn't mean the message from investor behavior is all smooth sailing, though. Demand for inflation protection also ended the quarter strongly, which suggests the transitory inflation narrative cannot be taken for granted. And we also noted a sharp drop in long-term investor participation in recent auctions — another trend that will need close watching with the debt ceiling and fiscal packages still up for debate.

Demand For Treasury Inflation-Protected Security (TIPS) and Long-Dated Bonds Accelerates

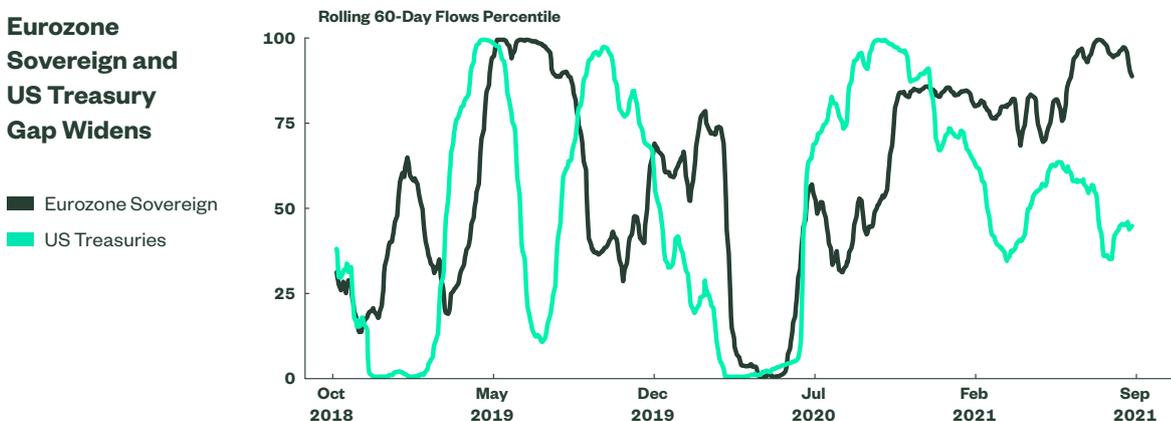


Source: State Street Global Markets, as of September 30, 2021.
Flows and holdings are as of the date indicated. They should not be relied on thereafter.

European Demand Outpaces US

A key theme through much of 2021 has been more robust investor demand for eurozone sovereign debt — despite much lower yields and a potentially dangerous combination of relatively weak growth and high debt levels. This resilience will face further tests in the next six months now that we have a clear end date for the ECB's extra asset purchases through the PEPP and reemerging eurozone inflation. But for now, euro sovereigns remain the clear investor preference, perhaps because the starting levels for both growth and inflation expectations are so much lower in the area. The only caveat worth noting here is that while demand for Italian debt remains robust, we see weaker demand for both Spain and peripheral bonds, the latter worth watching for potential signs of stress once the PEPP buying ends.

Eurozone Sovereign and US Treasury Gap Widens



Source: State Street Global Markets, as of September 30, 2021.
Flows and holdings are as of the date indicated. They should not be relied on thereafter.

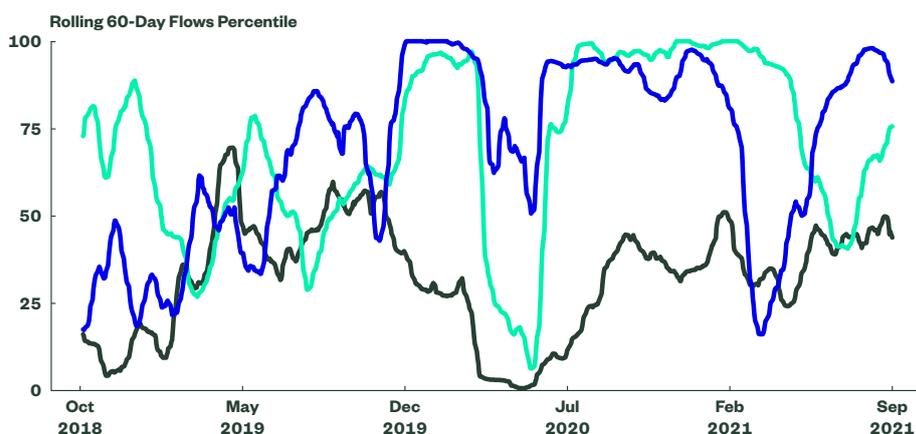
Sovereign versus Credit Concerns

We would caution not to interpret robust investor demand for euro sovereign debt as indicating a lack of appetite for yield. Even though demand for Treasuries was tepid in Q3, the same cannot be said of US high yield debt and, to a lesser extent, investment-grade credit. This trend was mirrored in Europe, where demand for corporate debt was also robust. Although growth expectations may have peaked, we note that earnings news in general has been solid, suggesting corporates remain in better-than-average health. That isn't the case everywhere, of course, but it is interesting to note that contagion from potentially lower growth expectations, more generally, and from the news of Chinese property giant Evergrande's debt crisis, more specifically, has been limited so far.

Curiously though, it is telling that robust demand for credit does not extend to higher yielding local currency like EM sovereign debt, where flows have recovered only to near average levels. As we will explore later, this may reflect more troubling inflation trends in a range of EM markets and, in many places, the beginning of interest rate tightening cycles in response.

Healthy Appetite for US and Eurozone Credit

- EM Local Currency Sovereign
- US High Yield
- Euro Corporates



Source: State Street Global Markets, as of September 30, 2021.
Flows and holdings are as of the date indicated. They should not be relied on thereafter.

Inflation: Anything but Average

Quarterly measure of inflation based on prices from millions of items sold by online retailers, helping investors anticipate and evaluate the impact of inflation.

PriceStats® provides high-frequency measures of inflation and real exchange rates drawn from prices on millions of items sold by online retailers. This real-time pulse of global economic trends helps investors anticipate and evaluate the impact of inflation, including the impact on monetary policy and the degree of exchange rate misalignments.

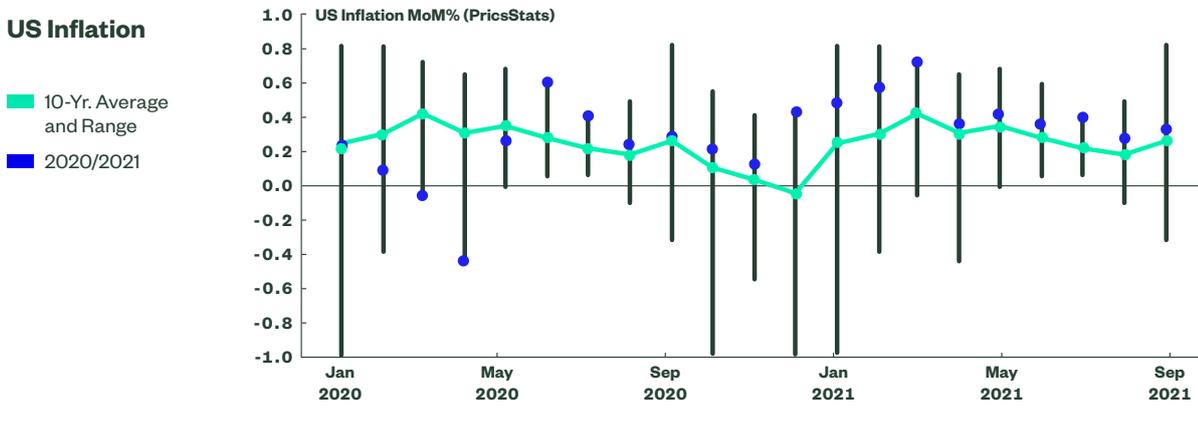
This information is available on a daily basis from State Street Global Markets: globalmarkets.statestreet.com.

Anything but Average

The hope that inflation would be transitory has and continues to be a key theme supporting both fixed income and equity markets. Unfortunately, while elements of the current inflation are beginning to reverse, other factors are emerging to take their place. This could potentially test both the markets' and policymakers' patience if underlying inflation does not start to ease soon.

PriceStats® allows us to track this in near-real time, with the additional *advantage* of not directly collecting some sectors distorted by the reopening so as to capture underlying inflation. If we assume PriceStats® returns to its normal seasonal run rate, the annual rate of inflation will be back below 3% by the last week in December and back to 2.3% by the end of March — a clear and transitory supporting trend. The challenge, however, is that PriceStats has returned at or *above* average monthly inflation readings for 17 consecutive months, September included. While recent monthly gains have been closer to their historic averages, the longer this run of above average monthly readings continues, the less credible the transitory narrative becomes. This would be true even if the annual inflation rate begins to fall, which it almost inevitably will in the next six months.

US Inflation



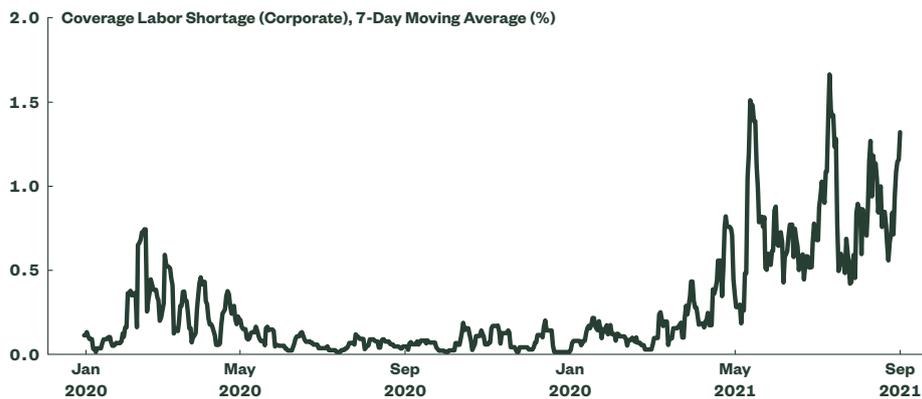
Source: State Street Global Markets, as of September 30, 2021.

US Inflation: No Shortage of Concern

As troubling as the incoming inflation prints are, the market will continue to take some comfort from more limited evidence that inflation is becoming embedded in expectations. While long-term inflation expectations from financial markets, consumer sentiment and economist surveys have all risen, they remain contained and are notably below shorter-horizon expectations. This reflects a continued belief in the transitory inflation narrative. Arguably the biggest threat to this, over and above the current inflation trend itself, is evidence of more robust wage growth.

In a similar vein to these expectations themselves, wage growth (adjusted for the changing composition of the workforce) has accelerated, but not yet to levels that would be deemed troubling. Further, with employment levels still substantially below pre-pandemic levels, one might assume that wage growth should not become a serious threat with a plentiful supply of available labor to constrain it. However, the unevenness of the COVID-19 pandemic recovery means that this cannot be taken for granted, and the intensity of mentions of labor shortages in corporate communications is rising once more. With the potential to either restrain output growth or to generate wage growth strong enough to cast doubt on the transitory inflation narrative, the resolution of these pockets of labor market shortages seems likely to be a key tipping point for fixed income markets in the next six months.

Intensity of Coverage of Labor Shortage



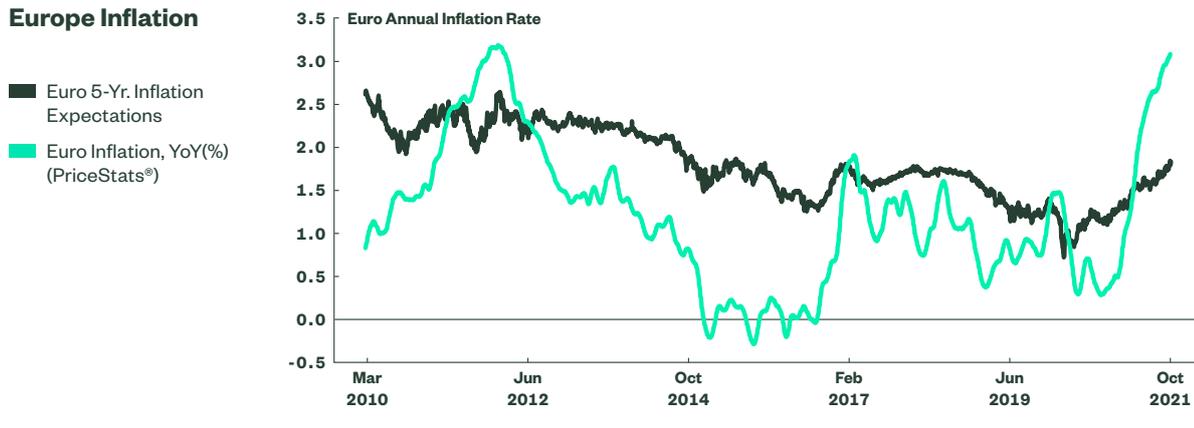
Source: State Street Global Markets, as of September 30, 2021.

Eurozone Inflates

The recovery in eurozone output has not been as spectacular as that in the US. Despite an initially hesitant vaccine rollout and disrupted reopening in H1, and more modest direct fiscal stimuli, growth forecasts in the eurozone did not rise earlier in the year as they did in the US. They are, however, beginning to surge higher as the reopening gets underway and retailers appear to have some pricing power.

Like other areas, Europe has had to contend with a less friendly global inflationary environment, but has had its own specific, largely political, issues with the constrained supply of natural gas. This has taken headline inflation above 3% for the first time, a trend that PriceStats® had been warning about for a few months prior. But it is notable now that medium-term inflation expectations are beginning to rise in response. In fact, for all the focus on the uptick in inflation in the US, European inflation expectations rose the most in the last quarter. Similar to the US, Europe's current wage growth is not yet suggestive of potential second-round effects, but this pressure will build the longer that inflation remains high.

Europe Inflation



Source: State Street Global Markets, as of September 30, 2021.

Emerging Inflation Plateau?

Inflation trends in EM have been a challenge for both investors and policymakers for much of this year and will remain so in Q4. PriceStats® was quick to capture the rapid acceleration in EM inflation in the middle of 2020 and the rate of acceleration has only begun to moderate in the last quarter. The good news is that in contrast to developed markets, most EM central banks are showing no signs of accommodating this rise in inflation and tightening cycles are already underway, even with a more uncertain growth outlook. Combined with favorable base effects and currency stability, this means that inflation should start to peak in the coming six months. As we noted earlier, this could prove a key catalyst for the return of long-term investors into EM local currency sovereign markets, if and when the inflation trend finally turns.

Emerging Market Inflation



Source: State Street Global Markets, as of September 30, 2021.

Barbell Credit with Defensives for Yield and Durability

State Street Global Advisors has identified the key considerations for investors in the coming quarter, and how markets can be navigated using SPDR ETFs.

Fixed Income Outlook

Barbell Credit with Defensives for Yield and Durability

As investors head into the fourth quarter and the effects of the coronavirus delta variant linger, bond portfolios face a multitude of variables that may impact their trajectory over the coming months. These issues are set against a backdrop of the recent hawkish tilt from the Fed, which said in September that it may start tapering by November, with a potential rate hike next year.¹ After the Fed's September meeting, it was revealed that nine of the 18 Fed officials expect the central bank to begin raising rates next year² — up from seven at June's meeting.³

While rate hikes may be off in the future, we do expect long-term rates to rise as the Fed starts to normalize policies and pandemic-related factors, such as supply chain disruptions, consumer demand and employee shortages, continue fueling inflationary forces, a situation that may be heightened during the holiday shopping season.⁴ This is why we feel that Treasury Inflation-Protected Securities (TIPS) may be the more attractive defensive Treasury position once again next quarter, as opposed to nominals.

Yet rates will still be low relative to historic standards, and on a real basis. Currently, 78% of all investment-grade bonds trade below the market's expectation for inflation over the next 10 years⁵ (10-year breakeven rates are 2.37%).⁶ As a result, there are not a lot of positive real income opportunities in the largest part of the bond market, exacerbating the challenge of generating income in our low but rising rate environment.

With a significant amount of long-dated issuance coming to market (both corporate and Treasury), duration profiles for investment-grade bonds have become extended. For instance, the duration on the Bloomberg U.S. Aggregate Bond Index (Agg) has increased from six years before the pandemic to 6.6.⁷ As a result, the yield-per-unit-of-duration profile of the broad the Agg sits at 0.23 — a level 28% below that of its prior three-year average.⁸ Given our view for an upward bias on rates, taking on any extended duration risks to obtain a diminutive yield may not be a valuable trade-off in this market — from either an income or total return perspective.

In order to achieve higher portfolio yields, investors typically need to accept exposures with increased credit risks that often exhibit higher correlation to the equity market. Credit has benefited from some of the same forces that have propelled equity markets, including still accommodative policies and supportive growth.⁹

More so, the fears of China credit concerns spilling over into other areas of the global credit markets appear contained, evidenced by the fact that global high yield credit spreads registered an increase of just five basis points in the month of September — compared with the increase of 300 from the China high yield market.¹⁰ As a result, we are constructive on credit in this market to potentially produce positive real income and total return opportunities.

For the next quarter, a barbell of defensive real return TIPS positions and high-income credit exposures may be a valuable allocation to navigate the low, and still uncertain, return environment, as the Fed starts to taper and the economy continues to reopen.

Focus on Loans for Real Income and Less Rate Risk

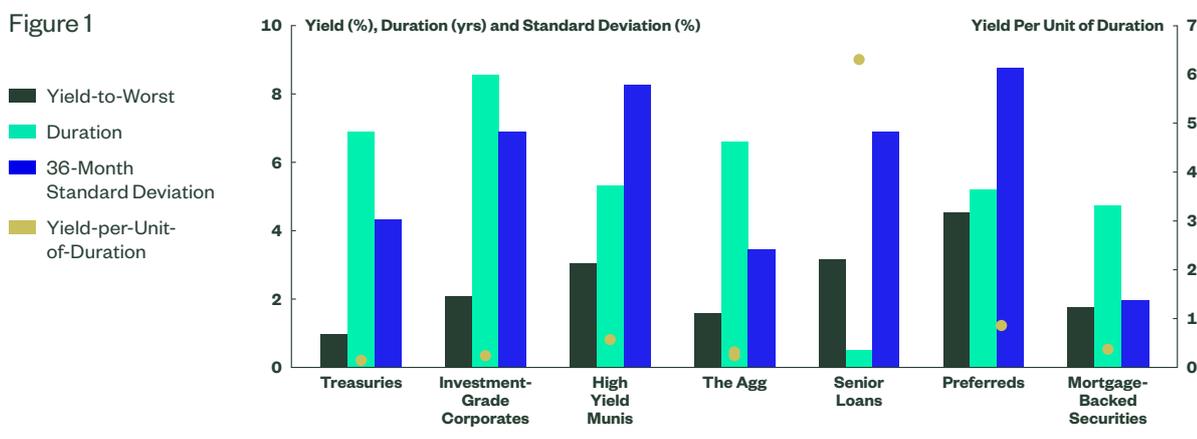
Despite taper talks and a more hawkish dot plot view, monetary policies are likely to continue to foster liquidity and the TINA (there is no alternative)-style risk taking that has been a tailwind for credit markets. Positive rating trends offer fundamental support for this outlook on credit, as the ratio of high yield upgrades-to-downgrades is at the highest level ever.¹¹ Return momentum is also in credit's favor, as below-investment-grade bonds have posted gains in 18 out of the past 20 months, while core global bonds are registering their worst return since 2005 given the rise in rates this year.¹²

Credit, however, is not immune to duration headwinds, as yield curve changes have subtracted 176 basis points from high yield's overall 4.54% return in 2021.¹³ And within investment-grade bonds, the impact has been even worse as curve changes have pushed returns negative on the year.¹⁴ Senior loans, with their floating rate structure, have been able to sidestep duration-induced price declines while still participating in the credit rally. Yield curve changes so far this year have been negligible for loans, a fact underscored by loans outperforming the more duration-sensitive investment-grade corporate bond market (+580 basis points).¹⁵

Looking ahead, senior loans' floating rate structure may prove to be even more valuable should rate hikes impact the short end of the curve. In addition to mitigating any potential duration-induced return headwinds, senior loans' floating rate component increases the potential yield as the securities' underlying coupons adjust to the prevailing short-term market rate they are tied to the London Interbank Offered Rate (LIBOR).

Beyond the potential benefit of limiting rate sensitivity, senior loans might be an effective tool for generating potential real income, as yields are above breakevens and comparable to high yield corporate bonds. Senior loans currently yield 3.71%,¹⁶ just below high yield corporates' 4.04%,¹⁷ but with far less interest rate risk due to the frequent resetting of loans' coupon payments. The following chart illustrates senior loans' strong yield-per-unit-of-duration, underscoring their potential to generate high income while mitigating any duration-induced price impacts.

Figure 1



Source: Bloomberg Finance, L.P., as of September 30, 2021. **Past performance is not a guarantee of future results.** Treasuries = Bloomberg U.S. Treasury Index, IG Corporates = Bloomberg U.S. Corporate Index, HY Corporates = Bloomberg U.S. Corporate High Yield Index, Senior Loans = S&P/LSTA U.S. Leveraged Loan 100 Index, EM Debt = Bloomberg EM Hard Currency Aggregate Index, MBS = Bloomberg U.S. MBS Index, Agg = Bloomberg U.S. Aggregate Bond Index, Preferreds = ICE BofA Hybrid Preferred Securities Index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

Additionally, if the credit rally does stall (even though loan defaults are expected to remain near all-time lows through the remainder of 2021 and into 2022)¹⁸ or if macro risks pile up, loans are more senior in their capital structure and historically have witnessed lower relative levels of volatility than fixed-rate high yield (4.67% vs. 6.73%).¹⁹ The downside deviation for loans is also better than high yield (7.53% vs. 11.95%).²⁰

Overall, senior loans' lower volatility profile relative to fixed-rate high yield, potential to generate higher income, and floating rate structure that can reduce the negative impact of higher rates, make loans an integral part of a diversified credit portfolio in this environment.

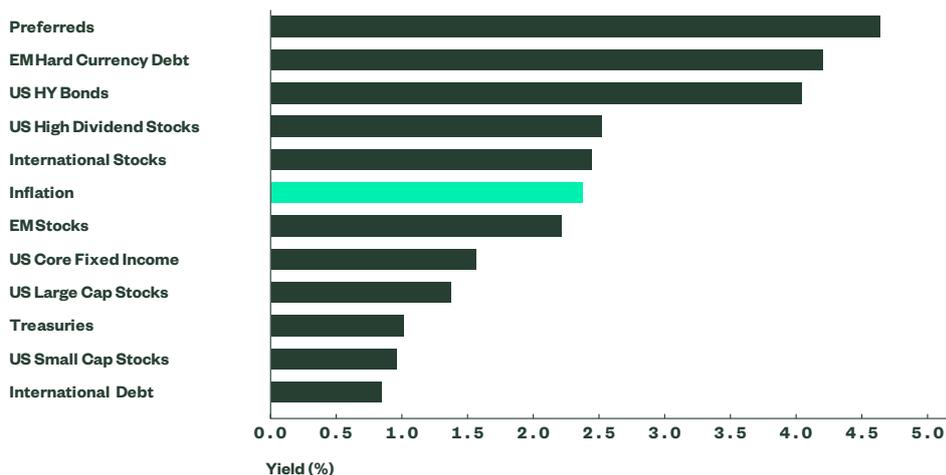
For an actively managed senior loan exposure that may add more value over an indexed approach through credit selection, consider the SPDR® Blackstone Senior Loan ETF (SRLN).

Preferreds May Offer Real Yield and Diversification

With the economic backdrop likely to remain conducive for risk-taking, an overweight to hybrid exposures such as preferred stocks may be warranted for those in search of a real yield that may also provide additional diversification beyond pure credit.

For starters, preferreds currently generate yields higher than inflation expectations (4.64% vs. 2.37%)²¹ and are more favorable than high yield bonds, even though they are primarily investment-grade rated.²² As shown in the following chart, preferreds out-yield all other traditional and income-sensitive segments. As a result, given the low rates around the world, a potential 4%+ or 4% plus yield for a group of primarily investment-grade-rated securities, and not just junkier credits, is worth considering.

Figure 2



Source: Bloomberg Finance, L.P., as of September 30, 2021. **Past performance is not a guarantee of future results.** US HY Bonds: Bloomberg High Yield Very Liquid Index; Preferreds: ICE BofA Hybrid Preferred Securities Index; EM Hard Currency: Bloomberg Emerging Markets USD Aggregate; US High Dividend Stocks: S&P 500 High Dividend Index; International Stocks: MSCI EAFE Index; US Core Fixed Income: Bloomberg U.S. Aggregate; EM Stocks: MSCI Emerging Markets Index; US Treasury: Bloomberg U.S. Treasury Index; US Large Cap Stocks: S&P 500 Index; U.S. Small Cap Stocks: Russell 2000 Index; International Corporate Debt: Bloomberg Global Aggregate Ex USD >\$1B Corporate Bond Index. For fixed income, yield-to-worst was used while dividend yield was used for equities and preferreds. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

Preferreds may also help to enhance overall portfolio diversification. Due to regulatory and rating agency capital requirements, preferred securities tend to be issued primarily by financial institutions, such as banks and insurance companies. Thus, relative to their credit counterparts, preferreds are heavily allocated toward Financials (73.30%),²³ which strengthens their credit quality profile. The banking sector is one area that may benefit should rates rise, as bank margins benefit if the long end of the yield curve rises. Outside of financials, preferreds also provide exposure to a variety of other sectors including Utilities (14.04%),²⁴ Real Estate (6.88%)²⁵ and Communications (4.53%).²⁶ Because this differs from their credit counterparts that provide more exposure to the volatile Energy sector,²⁷ adding preferreds to the mix can help to diversify credit sector exposures.

Cross-asset correlation impacts should be on investors' portfolio construction checklist, especially as we enter the fourth quarter, which historically has been a volatile time for markets.²⁸ Preferreds are both bond- and stock-like, and as a result their correlation profile is low relative to both asset classes. Their correlation to basic US Treasuries is very low at 0.04 over the past 15 years (based on monthly returns).²⁹ They also have a 0.42 correlation (or less) to equity-sensitive high yield bonds and to equities themselves — from all parts of the world.³⁰ Preferreds' volatility profile (5.78%)³¹ is also lower than that of common stocks (13.21%)³² and credit-sensitive high yield bonds (6.73%).³³

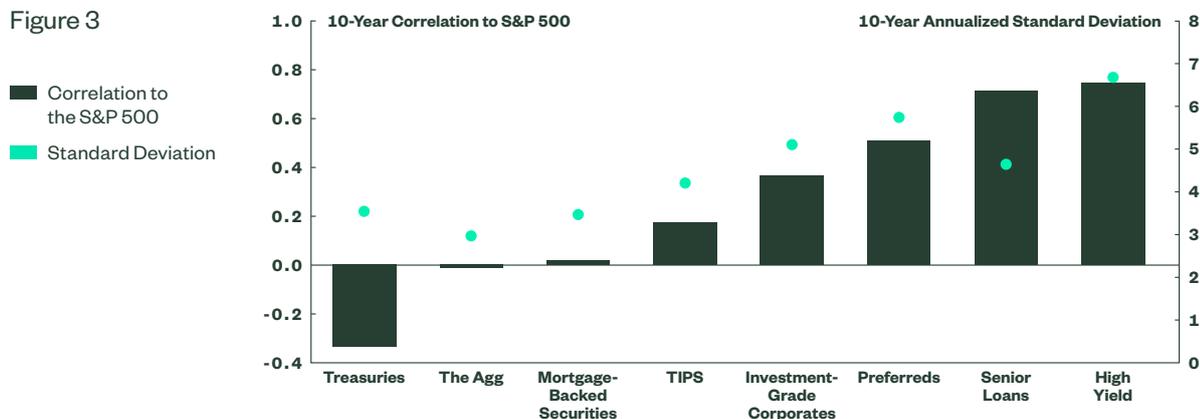
Overall, in a market with low rates and abundant macro risks, preferred security exposures, like the [SPDR® ICE Preferred Securities ETF \(PSK\)](#), could possibly add high income to a bond allocation without outsized volatility and equity risk.

Include TIPS for a Defensive Ballast in Portfolios

Barbell credit with TIPS could add another real income stream, this time from the defensive side of the bond portfolio. Because TIPS are backed by the full faith and credit of the US government, they have low credit risk and investors can be assured that they will never receive less than the original face value of the bond at maturity, even in the event of deflation during the life of the bond. Adding TIPS to a portfolio also could help counteract some of the equity risk introduced by overweights to credit.

US inflation expectations, as measured by the 10-year breakeven inflation rate, are above the 10-year average. Similarly, personal consumption expenditures, which the Fed uses as its inflation gauge, saw the largest annual increase since 1991.³⁴ US personal spending recently increased 0.8% from a month earlier, following a downwardly revised 0.1% decline in July.³⁵ Price increases are being felt across many advanced economies because of pandemic-related factors such as supply chain disruption, consumer demand and employee shortages. As a result, so far this year, owning TIPS instead of nominals has been a beneficial swap, as TIPS have outperformed nominals by 5.98%.³⁶ TIPS have also outperformed the Agg by 4.94%,³⁷ even though they have a longer duration (8.4 years vs. 6.97 years).³⁸ Given that inflationary forces will likely remain high (still-accommodative policies even with a taper, plus increased fiscal spending), a TIPS allocation may continue to be rewarded.

Figure 3



Source: FactSet, Period: September 30, 2011–September 30, 2021. **Past performance is not a guarantee of future results.** US Treasuries = Bloomberg US Aggregate Government — Treasury. MBS = Bloomberg US Aggregate Securities — MBS. US Agg = Bloomberg US Aggregate. High Yield Muni = Bloomberg Municipal Bond High Yield. TIPS = Bloomberg US Govt Inflation-Linked. IG Corporate = Bloomberg US Corporate Investment Grade. Preferreds = ICE BofA Hybrid Preferred Securities Index. Senior Loans = S&P/LSTA Leveraged Loan 100. HY Corporate = Bloomberg US High Yield Corporate.

As a distinct asset class from Treasuries — and not a component of the widely followed Agg — TIPS tend to behave differently from other investments that are commonly found in core bond portfolios. TIPS are not perfectly correlated to common fixed income investments and have a low correlation to equities, making them a valuable portfolio diversifier. Thus, including TIPS may help improve the risk/return profile of a diversified portfolio irrespective of the market’s inflation dynamics.

Investors may want to consider the SPDR® Portfolio TIPS ETF (SPIP) to add a source of real income and diversification for defensive positioning. Because TIPS ETFs pay out all earned income in the portfolio, including the inflation adjustment that is applied to the fund’s underlying securities (unlike individual TIPS), TIPS ETFs may be a better source of current real income than owning TIPS outright.

Endnotes

- 1 Forbes.com, September 22, 2021. "September FOMC Meeting: Tapering 'May Soon be Warranted.'"
- 2 Reuters, September 22, 2021. "Fed signals bond-buying taper coming 'soon,' rate hike next year."
- 3 CNBC, June 16, 2021. "The Federal Reserve now forecasts at least two hikes by the end of 2023."
- 4 Bloomberg, October 7, 2021. "Buttigieg Warns Supply Chain Trouble Will Hit Holiday Shopping."
- 5 Bloomberg Finance, L.P., as of September 30, 2021. Based on yield-to-maturity of bonds in the Bloomberg U.S. Aggregate Bond Index.
- 6 Bloomberg Finance, L.P., as of September 30, 2021.
- 7 Bloomberg Finance, L.P., as of September 30, 2021.
- 8 Bloomberg Finance, L.P., September 30, 2018 — September 30, 2021.
- 9 Bloomberg Finance, L.P., August 1, 2001 — September 30, 2021. High yield represented by the Bloomberg U.S. Corporate High Yield Index.
- 10 Bloomberg Finance, L.P., as of September 30, 2021, based on the ICE BoFA Global High Yield Index and the Bloomberg Asia Ex-Japan USD Credit China HY Index.
- 11 Bloomberg Finance, L.P., as of September 30, 2021. Based on S&P ratings.
- 12 Bloomberg Finance L.P., as of September 30, 2021, based on the Bloomberg Global Aggregate Bond Index and the Bloomberg U.S. High Yield Index.
- 13 Bloomberg Finance, L.P., as of September 30, 2021. High yield represented by the Bloomberg U.S. Corporate High Yield Index.
- 14 Bloomberg Finance, L.P., as of September 30, 2021. IG corporates represented by the Bloomberg U.S. Corporate Investment Grade Index.
- 15 Bloomberg Finance, L.P., as of September 30, 2021.
- 16 S&P Dow Jones, as of September 30, 2021. Measured using the S&P LSTA Leveraged Loan 100 Index's yield-to-maturity.
- 17 Bloomberg Finance, L.P., as of September 30, 2021. High yield represented by the Bloomberg Corporate U.S. High Yield Bond Index's yield-to-worst.
- 18 Blackstone Credit, as of August 31, 2021.
- 19 FactSet, September 30, 2011 — September 30, 2021.
- 20 FactSet, September 30, 2018 — September 30, 2021.
- 21 Bloomberg Finance, L.P., as of September 30, 2021. Preferreds represented by the ICE BofA Hybrid Preferred Securities Index. Inflation represented by the US 10-year breakeven rate.
- 22 Bloomberg Finance, L.P., as of September 30, 2021. Preferreds represented by the ICE BofA Hybrid Preferred Securities Index.
- 23 Bloomberg Finance, L.P., as of September 30, 2021. Preferreds represented by ICE Exchange-Listed Fixed & Adjustable Rate Preferred Securities Index.
- 24 Bloomberg Finance, L.P., as of September 30, 2021. Preferreds represented by ICE Exchange-Listed Fixed & Adjustable Rate Preferred Securities Index.
- 25 Bloomberg Finance, L.P., as of September 30, 2021. Preferreds represented by ICE Exchange-Listed Fixed & Adjustable Rate Preferred Securities Index.
- 26 Bloomberg Finance, L.P., as of September 30, 2021. Preferreds represented by ICE Exchange-Listed Fixed & Adjustable Rate Preferred Securities Index.
- 27 Bloomberg Finance, L.P., as of September 30, 2021. High yield represented by the Bloomberg High Yield Corporate Bond Index. Preferreds represented by ICE Exchange-Listed Fixed & Adjustable Rate Preferred Securities Index. The index has a 13.36% weight to energy while preferreds have a 0.73% exposure to energy.
- 28 State Street Global Advisors, Bloomberg Finance, L.P., as of September 30, 2021. All three months' average CBOE VIX Index readings being at or above 20 since 1994, unlike any other quarter.
- 29 FactSet, as of September 30, 2021. Based on 15-year monthly returns. Preferreds represented by the ICE BofA Hybrid Preferred Securities Index.
- 30 FactSet, as of September 30, 2021. Based on 15-year monthly returns. Preferreds represented by the ICE BofA Hybrid Preferred Securities Index.
- 31 FactSet, September 30, 2011 — September 30, 2021. Preferreds represented by the ICE BofA Hybrid Preferred Securities Index. Volatility represented by standard deviation.
- 32 FactSet, September 30, 2011 — September 30, 2021. Common stocks represented by the S&P 500 Index. Volatility represented by standard deviation.
- 33 FactSet, September 30, 2011 — September 30, 2021. High yield represented by Bloomberg High Yield Corporate Bond Index. Volatility represented by standard deviation.
- 34 Bloomberg Finance, L.P., as of August 31, 2021.
- 35 Bloomberg Finance, L.P., as of August 31, 2021.
- 36 FactSet, as of September 30, 2021. Based on the Bloomberg U.S. Treasury Index and the Bloomberg U.S. Govt Inflation-Linked All Maturities Index.
- 37 FactSet, as of September 30, 2021. Based on the Bloomberg U.S. Aggregate Bond Index and the Bloomberg U.S. Govt Inflation-Linked All Maturities Index.
- 38 Bloomberg Finance, L.P., as of September 30, 2021. Based on the Bloomberg U.S. Aggregate Bond Index and the Bloomberg U.S. Govt Inflation-Linked All Maturities Index.

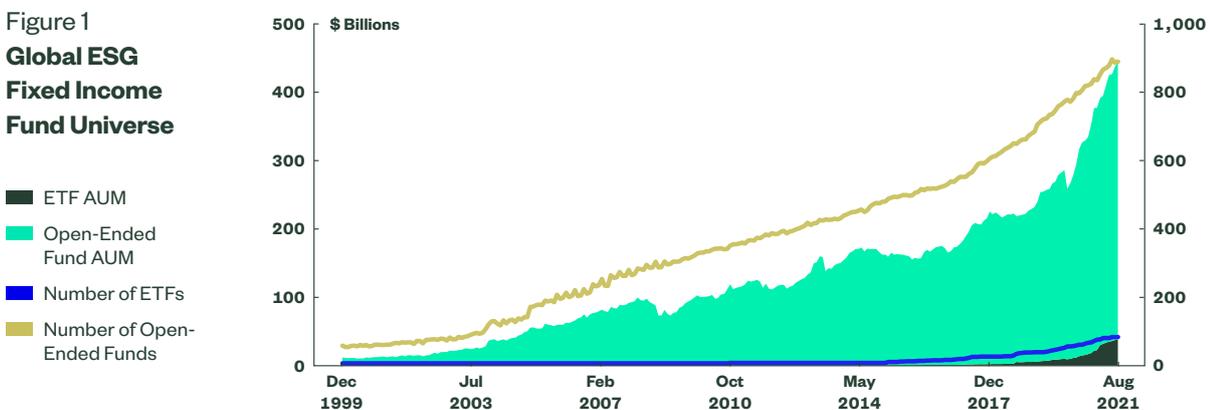
The Rise of ESG Fixed Income

The Rise of ESG Fixed Income

According to our recent survey of more than 350 global institutional investors,¹ 61% are prioritizing the integration of ESG factors in their fixed income portfolios over the next three years.² This validates the strong trend of asset growth in the evolving fixed income ESG universe, now comprised of nearly 1,000 funds globally with total assets of \$450 billion under management — \$41 billion in North America and \$404 billion in Europe.³

Although most of these assets have been invested in active mutual funds, there has been a meaningful uptick in both the number of ESG fixed income ETFs and their adoption by investors. In 2020, ESG fixed income ETFs had inflows of \$12.9 billion, more than three times the previous record year.⁴ Inflows the first eight months of 2021 have already surpassed that figure.⁵ More than half (58%) of all respondents in our survey noted that they will most likely use ETFs as their preferred investment vehicle for increasing allocations to fixed income ESG strategies, with investors in North America (68%) having a stronger preference for ESG-related ETFs than those in Europe (50%).⁶

Figure 1
**Global ESG
Fixed Income
Fund Universe**



Source: Morningstar Direct as of August 31, 2021. The above refers specifically to the Global ESG Fixed Income Universe of Funds.

How Can Investors Incorporate ESG?

There is no one standard approach to incorporating ESG into a fixed income portfolio. Methodologies vary from strictly excluding investments based on ethical or value considerations to ESG integration devoid of any negative screening. These diverse approaches can be broadly grouped into five categories:⁷

- **Exclusionary (Negative) Screening** was the first ESG investing approach and it is still the most common. This method excludes specific companies, sectors or countries based on ESG factors and/or an investor’s values-based goals. The benefits of this strategy include mitigating reputational risk and helping to ensure that investors do not allocate funds to companies or sectors that directly conflict with their beliefs. Examples include religious investors who exclude investments in “sin stocks” or investors who align their portfolios with initiatives such as the United Nations Global Compact (UNGC) and exclude companies and/or sectors that violate UNGC principles.
- **Positive/Best-in-Class** focuses on investment in sectors, companies and countries that have superior ESG performance relative to the universe or industry peers. This method is gaining attention because of the increasing availability of ESG data and research showing that companies with high ESG scores have the potential to outperform companies with low ESG scores over the long term.
- **ESG Integration** is the systematic and explicit inclusion of material ESG metrics into the investment analysis and decision-making process. This is a more systematic investment approach than an overlay.
- **Thematic Investing** allocates assets in line with specific ESG themes, such as those encompassed by the United Nations Sustainable Development Goals (UN SDGs), including climate change and carbon emissions reduction, health care, diversity or human rights. These strategies often have specific metrics that they hope to achieve. A common objective is investing in a way that aligns with the Paris Climate Agreement, which sets out a global framework to avoid catastrophic climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C.
- **Impact Investing** typically targets investments that are aimed at specific social and/or environmental issues. These investments often prioritize “impact” objectives over or at par with return/performance objectives and reflect specific targeted and measurable outcomes. Examples include funds that invest in renewable energy, conservation or affordable health care and education.

Common Methods of ESG Incorporation

Exclusion/Negative Screening	Positive/Best-In-Class	ESG Integration	Thematic	Impact
The inclusion of specific companies, sectors or countries based on ESG factors and/or that comply with values-based ideals	Investment in sectors companies and countries selected for superior ESG performance relative to universe or industry peers	Systematic and explicit inclusion of material ESG metrics into traditional investment analysis and decision-making process	Investing in specific ESG themes, such as climate/ carbon, health products and human rights	Targeted investments aimed at specific social and/or environmental concerns, most often with measurable aspects
Benefits <ul style="list-style-type: none"> • Mitigates reputational risk • Values-based ideals 	Benefits <ul style="list-style-type: none"> • Strong belief that ESG leaders will outperform in the long term 	Benefits <ul style="list-style-type: none"> • Better informed investment decisions • No impact to investment universe 	Benefits <ul style="list-style-type: none"> • Focused on ESG investment aligned with thematic convictions • Measurable impact 	Benefits <ul style="list-style-type: none"> • Targeted investments aligned with convictions • Measurable impact • Potential local impact
Risks <ul style="list-style-type: none"> • Limits eligible investment universe • ESG impact open to debate 	Risks <ul style="list-style-type: none"> • Limits eligible investment universe 	Risks <ul style="list-style-type: none"> • Credibility of investment approach/ methodology 	Risks <ul style="list-style-type: none"> • Restricted investment universe • Hype effect and speculative activity 	Risks <ul style="list-style-type: none"> • Uncertain/volatile financial return • Often illiquid

Source: UN PRI, Eurosif, State Street Global Advisors.

These methods are not mutually exclusive; where feasible, they can be combined to achieve an investor's overall investment objectives.

However, it is also important to note that fixed income is a much more diverse asset class than equities — spanning corporate bonds, sovereign and government-related bonds, and securitized and private debt. The opportunity set to incorporate these methods has increased significantly for corporate bond investors as companies have responded to the importance of acknowledging ESG considerations. From providing more useful and relevant data points to the creation of bonds with specific sustainable projects or goals, a growing amount of corporate debt now meets ESG mandates. While this makes it possible for investors to be consistent in how they reflect their ESG values and objectives across both their equity and corporate bond exposures, it remains more challenging to assess sustainability risks of other fixed income security types, such as sovereign bonds and securitized products.

How Are Issuers Participating in ESG?

Fixed income issuers have become an integral part of ESG adoption and asset growth. For an issuer to be properly rated from an ESG perspective, relevant and robust data must be available. Governments, municipalities and companies are more aware of ESG-related elements and, in some cases, have established new roles or divisions to work with the investment community. The resulting greater data availability has improved the accuracy of ESG ratings for bond issuers, allowing investors to more confidently focus on those with higher ESG ratings.

There are also specific securities that have defined responsible investment guidelines and strict requirements about how the proceeds of those investments are used. Although small when compared to the broader bond market, this universe of bonds is growing and currently stands at more than \$300 billion of new corporate issuance through the first three quarters of 2021.⁸ Targeted at generating climate, social or other environmental benefits, these bonds typically fall into one of four categories:⁹

- **Green Bonds** Started in 2007 with issuance from the European Investment Bank and World Bank, the push for more transparency in the green bond market has encouraged the development of indices that track the green bond universe. These indices have provided the means to track market developments, evaluate performance and assess market risk. Commonly used benchmarks include the Bloomberg MSCI Green Bond Index, the S&P Green Bond Select Index and the Bank of America Merrill Lynch Green Bond Index.
- **Social Bonds** First issued by the Spanish Instituto de Credito in January 2015, social bonds follow a similar set of principles and quality-of-information requirements as green bonds but, as the name suggests, the proceeds are used to support social programs. Project examples include access to essential services (e.g., health, education and financial services), affordable housing and microfinance.
- **Sustainable Bonds** Starbucks issued the first-ever US corporate sustainability bond in 2016. The bond raised \$500 million dedicated to sourcing coffee that meets the company's standards on measuring the environmental and social practices of its suppliers.¹⁰ Sustainable bonds differ from green bonds in that they offer issuers a broader mandate of acceptable ESG uses for the proceeds of the bond.
- **Blue Bonds** The youngest member of the sustainable bonds family, blue bonds debuted in October 2018 when the Seychelles, in partnership with the World Bank, issued a \$15 million bond.¹¹ Blue bonds finance marine and ocean-based projects that have positive environmental, economic and climate benefits.

Choosing these bond categories allows investors to influence and have better views into the use of proceeds at the issuer level than they would have with general issues.

What Are Investors Prioritizing?

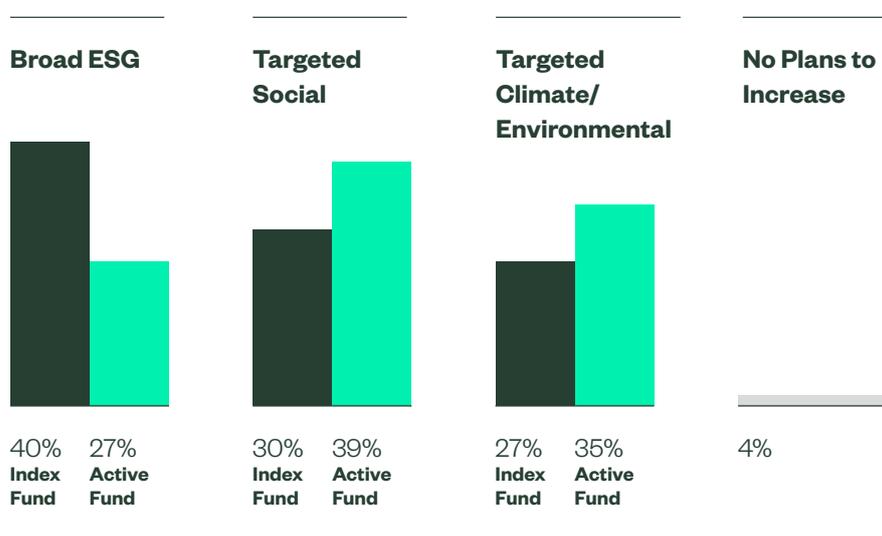
In terms of how institutional investors are incorporating ESG issues into their fixed income portfolios, our research identifies Best-in-Class as the most popular ESG fixed income approach, with 49% of respondents using the method. Our survey also revealed regional differences in the incorporation of ESG preferences, with 42% of North American respondents employing Best-in-Class compared to 50% of European respondents. This trend was reversed for Impact Investing, which was employed by 50% of North America respondents and just 34% of those in Europe.¹²

Once investors choose an ESG incorporation method, or a combination of methods, they must evaluate the investment opportunities and weigh the style of investing (active or index). Survey findings indicate investors favor certain styles based on what the specific ESG strategy entails. For a broad ESG strategy, an index approach is favored. For targeted social or targeted climate/environmental strategies, an active approach is favored.

Future Fixed Income ESG Strategy Allocations

Figure 2

What Type(s) of Fixed Income ESG Strategy Is your Institution Likely to Increase Allocation to Over the Next Three Years?



Source: State Street Global Advisors. Respondents asked to select all that apply. As of September 30, 2021.

The State Street Global Advisors Approach

Index investing can be an ideal way to gain exposure to broad ESG factors in a fixed income portfolio. But to do that, data must be aggregated to measure the performance of a company's business operations and governance as it relates to financially material ESG challenges facing the company's industry. This is why State Street Global Advisors developed R-Factor, a proprietary ESG scoring system that draws on data from multiple providers and leverages commonly accepted, transparent materiality frameworks to generate a unique ESG score for listed companies.

State Street Global Advisors uses R-Factor to provide a best-in-class, index strategy focused on the investment-grade corporate bond sector. Launched in 2020, the [SPDR® Bloomberg SASB® Corporate Bond ESG Select ETF \(RBND\)](#) can be used as a core ESG building block to gain exposure to firms exhibiting certain financially material ESG characteristics. RBND is just one example of the different types of solutions from State Street Global Advisors that are [available to help investors incorporate ESG](#) into their portfolios.

Endnotes

- 1 In partnership with Longitude Research, a Financial Times company. The research also included in-depth telephone interviews with two institutional portfolio managers (one in North America and one in Europe).
- 2 [Fixed Income: Preparing for the Big Shift](#), State Street Global Advisors, June 2021. Research done in partnership with Longitude Research, a Financial Times company. The research also included in-depth telephone interviews with two institutional portfolio managers (one in North America and one in Europe).
- 3 Morningstar Direct, as of August 31, 2021. Refers specifically to the Global ESG Fixed Income Universe of Funds.
- 4 Morningstar Direct, as of August 31, 2021. Refers specifically to the Global ESG Fixed Income Universe of Funds.
- 5 Morningstar Direct, as of August 31, 2021. Refers specifically to the Global ESG Fixed Income Universe of Funds.
- 6 [Fixed Income: Preparing for the Big Shift](#), State Street Global Advisors, June 2021.
- 7 [ESG Investing — An Introduction for Investors](#), State Street Global Advisors, April 2021.
- 8 [Corporate ESG bond issuance: Q3 21 update](#), Barclays, October 2021.
- 9 ESG in Fixed Income, State Street Global Advisors, 2020.
- 10 [Fixed Income: Preparing for the Big Shift](#), State Street Global Advisors, June 2021.
- 11 [ESG Investing: Combining Performance and Impact in Fixed Income](#), State Street Global Advisors, June 2020.
- 12 [ESG Investing: Combining Performance and Impact in Fixed Income](#), State Street Global Advisors, June 2020.

Important Information

Information Classification: General Access.

Marketing Communication.

Important Risk Discussion

Investing involves risk including the risk of loss of principal.

The views expressed in this material are the views of Matthew Bartolini, Emily Theurer, Marvin Loh, Lyubka Dushanova and David Furey through the period ended June 30, 2021 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

Diversification does not ensure a profit or guarantee against loss.

Prior to 02/26/2021, the SPDR Blackstone Senior Loan ETF was known as the SPDR Blackstone / GSO Senior Loan ETF.

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Investing in high yield fixed income securities, otherwise known as "junk bonds," is considered speculative and involves greater risk of loss of principal and interest than investing in investment-grade fixed income securities. These lower-quality debt securities involve greater risk of default or price changes due to potential changes in the credit quality of the issuer.

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Senior Loan will result in a reduction in the value of the Senior Loan and consequently a reduction in the value of the Portfolio's investments and a potential decrease in the net asset value (NAV) of the Portfolio. Securities with floating or variable interest

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