

QUARTERLY OUTLOOK

OCTOBER 2021

Q3 Stretch Reprices the Market to Perform
Thoughts from our Chief Investment Strategist

Forecast Calls for Continued Recovery with Accumulating Clouds
Thoughts from our Global Macroeconomic Research Team

Fixed Income Overview

Our final Quarterly Outlook of 2021 arrives with the fastest pace of the virus-related recovery likely behind us. While global growth may remain above trend in 2022, the contours are increasingly obscured by some unfamiliar obstacles, including lingering inflation, concurrent removal of global monetary policy accommodation, and jarring corporate crackdowns.

When assessing the bond market's potential performance going forward, Robert Tipp, CFA, Chief Investment Strategist and Head of Global Bonds, identifies several clues indicating the fixed-income opportunities that exist going forward in ["Q3 Stretch Reprices the Market to Perform."](#)

Several key factors may continue to support global economic growth going forward. Yet, in ["Forecast Calls for Continued Recovery with Accumulating Clouds,"](#) our Global Macroeconomic Research Team points to offsetting risks coalescing on the horizon.



The Bond Blog @ PGIM Fixed Income

- [Three Scenarios for ECB Policy Going Forward](#)
- [M&A Revival: A Tailwind for High Yield Performance](#)
- [Markets \(and the Fed\) Getting Real About Taper](#)
- [EM Winners and Losers of Soaring Oil and Food Prices](#)
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- [Webinar—The Future of Central Banking: New Frameworks, Fighting \(Dis\)inflation, and Taper Timelines](#)

[Developed Market Rates](#) | 8

Looming central bank developments place an emphasis on tactical positioning across the sector.

[Agency MBS](#) | 8

Underweight MBS vs. rates in early Q4, but more tactical, underweight positioning in 30-year 2% issues after notable underperformance vs. rates. Still focused on specified pools vs. TBAs, while maintaining a 20-year sector overweight vs. the 30- and 15-year sectors. Reducing exposure to GNMA's vs. conventionals.

[Securitized Credit](#) | 9

A mixed view. Credit curves generally remain flat, keeping us wary of generic mezzanine risk. In the event of a risk selloff, perhaps due to a monetary policy error, securitized spreads may generally follow other risk markets. Yet, high-quality securitized products look attractive vs. other spread products, particularly at the front of credit curves. We also see value further down in the capital structure for quasi-private ABS.

[Investment Grade Corporate Bonds](#) | 10

Cautiously constructive over the medium and long term. Expect spreads to remain reasonably rangebound with some potential widening toward year end. Still room for spread tightening in select BBBs, financials, and energy.

[Global Leveraged Finance](#) | 12

Expect spreads to tighten on the back of lower defaults, improved fundamentals, and the global demand for yield. In the near term, the market could remain volatile. Active credit selection will differentiate performance.

[Emerging Market Debt](#) | 12

Credit and issue selection remains paramount. Given the sector's dispersion, bottom-up fundamental and relative-value focus will identify outperforming issues. Maintaining a high degree of conviction on EM spreads with restrained positioning given the global crosswinds. Local rates and EMFX may perform well, but global conditions suggest limited allocations.

[Municipal Bonds](#) | 13

Positive view based on more attractive valuations and a supportive technical environment into year end.

SECTOR VIEWS ▼

Q3 Stretch Reprices the Market to Perform

Despite all of the real-world drama in Q3, the markets ended up little changed on net with most index returns consequently clustered around zero (Figure 1). Intra-quarter, however, the markets moved significantly in response to shifts in the policy and economic backdrop. Thankfully, as these developments emerged, they offered important clues about how economies and markets may evolve from here. The following outlook summary is generally against consensus and subject to bouts of volatility, but, on balance, the clues point to continued optimism towards the bond market's performance over the quarters ahead.

Figure 1: Little in the Way of Returns After an Eventful Quarter

Individual FI Sectors	Q3 2021	YTD	2020	2019	2018	2017
U.S. Long IG Corporates	-0.12	-2.56	13.94	23.9	-7.24	12.09
Long U.S. Treasuries	0.47	-7.49	17.7	14.8	-1.84	8.53
EM Debt Hard Currency	-0.70	-1.36	5.26	15.04	-4.26	10.26
U.S. IG Corporate Bonds	0.00	-1.27	9.89	14.5	-2.51	6.42
U.S. High Yield Bonds	0.94	4.67	6.2	14.4	-2.26	7.48
EM Currencies	-1.57	-2.17	1.73	5.2	-3.33	11.54
CMBS	-0.03	-0.53	8.11	8.29	0.78	3.35
U.S. Treasuries	0.09	-2.50	8	6.86	0.86	2.31
European High Yield Bonds	0.67	3.71	2.9	11.4	-3.35	6.79
U.S. Leveraged Loans	1.13	4.65	2.8	8.17	1.14	4.09
Municipal Bonds	-0.27	0.79	5.21	7.54	1.28	5.45
European Leveraged Loans	0.96	3.90	2.4	4.38	1.25	3.72
EM Local (Hedged)	-0.92	-3.80	6.07	9.14	0.75	3.68
Mortgage-Backed (Agency)	0.09	-0.65	3.87	6.35	0.99	2.47
European IG Corporate	0.08	-0.31	2.77	6.24	-1.25	2.41
Multi-Sector	Q3 2021	YTD	2020	2019	2018	2017
U.S. Aggregate	0.05	-1.55	7.51	8.72	0.01	3.54
Global Agg. (Unhedged)	-0.88	-4.06	9.2	6.84	-1.2	7.39
Global Agg. Hedged	0.09	-1.43	5.58	8.22	1.76	3.04
Yen Aggregate	0.08	-0.06	-0.8	1.64	0.93	0.18
Euro Aggregate (Unhedged)	0.00	-2.29	4.05	5.98	0.41	0.68
Other Sectors	Q3 2021	YTD	2020	2019	2018	2017
S&P 500 Index	0.58	15.92	18.4	32.6	-4.4	21.26
3-Month LIBOR	0.04	0.15	0.74	2.4	2.23	1.22
U.S. Dollar	1.07	4.77	-6.69	1.35	4.9	-7.85

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures and full index names. All investments involve risk, including possible loss of capital. Sources: Bloomberg except EMD (J.P. Morgan), HY (ICE BofAML), Bank Loans (Credit Suisse). European returns are unhedged in euros unless otherwise indicated. Performance is for representative indices as of September 30, 2021. An investment cannot be made directly in an index.

Uncertainty—the Only Thing That Seems Certain

We're now more than a year and a half beyond the COVID trough, yet the investment horizon remains riddled with critical questions

ranging from fiscal and monetary policy to Evergrande—and, yes, to the course of the virus as well. Many of these interrelated issues may remain up in the air for some time. Therefore, in the quarters ahead, we will likely continue witnessing surges and stalls across key economic data from retail sales and job creation to inflation. The resulting swings in investor sentiment point to consequent bouts of market volatility as well (see our [economics](#) and [sector outlooks](#) for more on the risks).

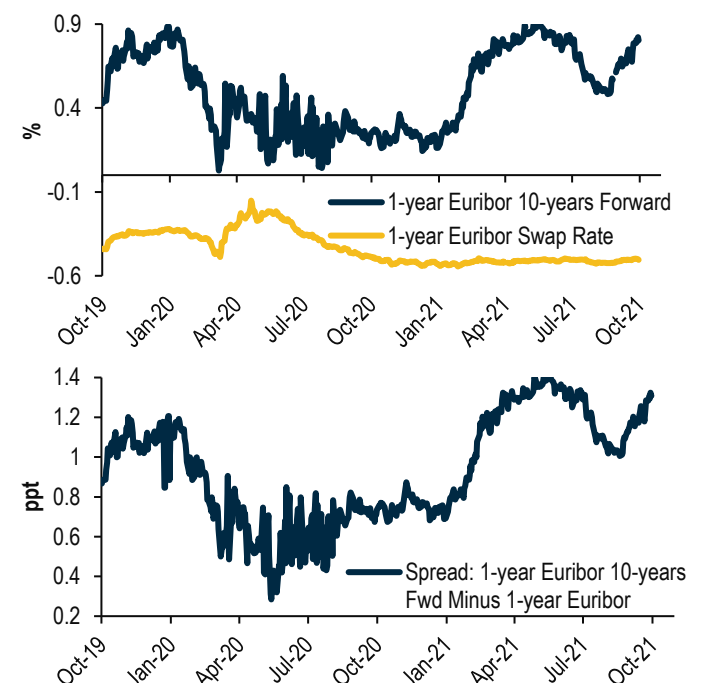
But Likely Solid Returns in the End? Why?

Despite the plethora of lingering risks, we remain optimistic that, on average, the bond bull market will continue to chug along over the quarters ahead, thanks to low and range bound interest rates and a favorable backdrop for spread products.

Low and Range Bound Rates Thanks to: 1. the Longer-term Fundamentals...

Looking beyond the next year or two of confusion, the secular fundamental drivers—such as aging demographics and high debt levels—that pushed rates lower for decades are likely to re-assert themselves with even more downward force in a post-COVID world of older populations and markedly higher debt levels. As a result, many central bankers may end up leaving administered rates near, or at, their effective lower bounds, and rate hike cycles will likely continue cresting at progressively lower and lower levels. From that perspective, the third quarter's increase in rates—which rose to levels that reflect a substantial and permanent rise in administered rates over the coming years—has probably already overshot fundamentals. In short, we see value at these interest-rate levels.

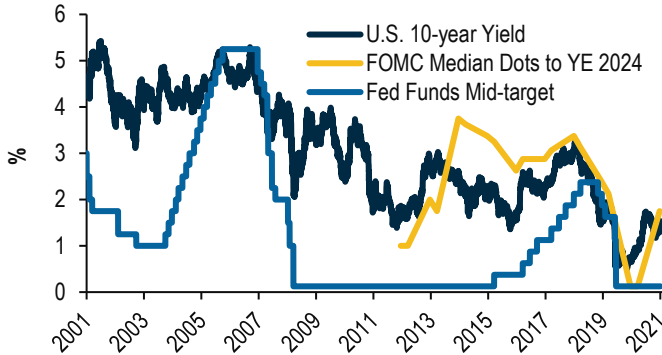
Figure 2: The European Yield Curve Bear Steepened, Leaving Forwards Near the Peak Extremes from Earlier This Year



Source: PGIM Fixed Income and Bloomberg as of October 2021

Q4 2021 Bond Market Outlook

Figure 3: While Long-term U.S. Rates May Appear Historically Low, the Underlying Progression of Fundamentals Should Continue to Drive Progressively Lower Highs and Lows. The 1.75% Level from Earlier this Year May Represent the Cycle Peak. At 1.5%, the Recent 10-year Yield May Already Reflect a Potential Fed Funds Cycle Peak of 1.75%.

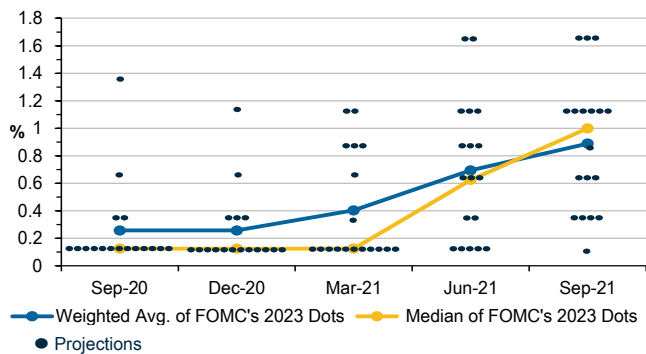
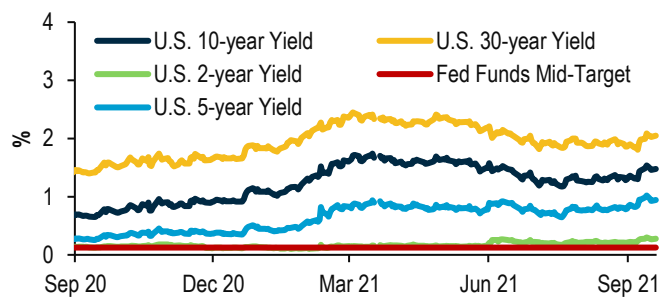


Source: PGIM Fixed Income and Bloomberg as of October 2021

... and 2. The Markets' Faith in the World's Central Bankers to Cap Inflation

This confidence became clear in Q2 when long-term rates fell after hawkish camps in the world's major central banks began to sound warnings on inflation. Perhaps the clearest case was in the U.S.: starting in March, the Fed's dot plot began to pull forward and steepen the expected path of rate hikes. And since then? Long-term rates in the U.S. have declined as short-term rates have risen.

Figure 4: As the FOMC's Expected Hiking Cycle Pulled Forward and Steepened, Long-term U.S. Yields Crested and Declined While Short-term Yields Rose, Indicating Markets' Faith in the Fed's Ability to Orchestrate a Soft Landing.



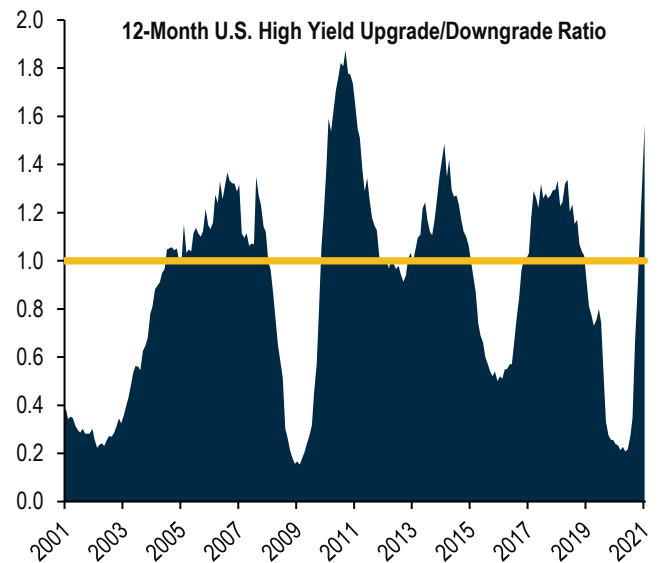
Source: PGIM Fixed Income and Bloomberg as of October 2021

For now, most DM central banks are likely to keep rates low as they focus on ensuring the economic recovery and restoration of full employment. Yet, the combined effects of clearing the decks for rate hikes by ending or tapering asset purchases and signaling a willingness to raise rates if and as needed to contain inflation appears to have convinced investors that the central banks stand at the ready. So, during what is already an awkwardly prolonged "transitory" period of high inflation, the markets appear inclined to keep the faith in an eventual return to a low and stable inflation backdrop, one way (via secular fundamentals) and / or another (via central bank action). This should continue to preclude a retrograde trend towards higher long-term rates.

A Favorable Backdrop for Spread Product

As for spread product, we expect the ongoing economic expansion to support credit fundamentals and, in turn, allow credit products to continue outperforming (see Figure 5). However, given the spread narrowing during the COVID recovery to what are now historically tight levels, we expect more modest excess returns primarily from incremental yield and rolling down the spread curve, rather than the wholesale spread compression observed since March 2020.

Figure 5: The Ongoing Economic Expansion Should Support Continued Improvement in Credit Fundamentals, Visible in the Elevated Ratio of Corporate Credit Rating Upgrades to Downgrades.



Source: PGIM Fixed Income and Bank of America as of August 2021

Caveats—Tapering May Buy the Markets Time; But Too Much Heat from Growth and / or Inflation Could Dim Their Prospects

Along with the faith in the Fed, which we credited for boosting bond market performance in Q2, a slight moderation in the recent economic data also tamped down fears of aggressive central bank tightening and provided a boost to the rates and risk markets. This, however, highlights an ongoing risk. Just as more moderate growth and inflation prints helped soothe the markets in Q2, the converse also likely holds: an economic re-acceleration and / or any threat to

Q4 2021 Bond Market Outlook

the transitory inflation story could spook investors. As a result, we will continue to carefully assess the course of global growth and inflation over the months and quarters ahead.

Bottom Line: The COVID recovery's boost to growth and inflation has lifted long-term rates to attractive levels. Between the secular fundamentals and the eagerness of the world's central bankers to contain inflation, any potential near-term spikes in rates toward Spring 2021 levels are likely to give way to lower yields in the quarters ahead—e.g., 10-year government bond yields, on average, just above zero in Japan, solidly below zero in Germany, and less than 1.5% in the U.S. Spread products are likely to outperform on average, but at a substantially reduced pace compared to the COVID recovery to date. Lastly, given the substantial uncertainty and risks on the horizon, our generally positive market outlook is likely to encounter occasional volatility, creating opportunities for adding value through active management.

Forecast Calls for Continued Recovery with Accumulating Clouds

During the global economy's recovery over the past year, we've seen a massive recovery in demand, fortified by the vaccines and heavy doses of fiscal and monetary support. Supply conditions, on the other hand, have followed a much bumpier road than anticipated, with widespread, persistent production bottlenecks, clogged distribution channels, and labor shortages capping the overall pace of economic activity. With strong demand butting up against supply constraints, higher inflation has emerged as the pressure valve. Thus, the downshift in global growth that is expected in 2022 has already been underway. Meanwhile, inflation remains higher and more persistent as this year draws to a close.

Importantly, though, the economic slowdown still leaves us expecting above-potential growth on average in the U.S., euro area, and Japan over the coming year. Demand, although off its peak growth during the initial surge of reopenings, nonetheless remains robust despite new pockets of risk posed by the Delta variant. Instead, supply constraints have likely limited further gains in the recovery. Demand for manufactured goods has remained well above pre-COVID levels, but shelves have been empty as shortages of semiconductors and other raw materials have limited availability. Meanwhile, demand for services has rebounded sharply from last year's depths, but labor shortages—particularly in the U.S. and UK—have led to long lines and missed sales.

We expect demand conditions will remain strong in the quarters ahead. A sharp rebound in wage and salary incomes, enormous household savings and wealth accumulation over the last year and a half, and still-accommodative financial conditions should support household consumption and encourage companies to continue increased business investments. If supply constraints have indeed been a major factor in capping economic growth and pushing inflation higher this year, then their possible resolution in coming quarters would allow some of that missed activity to be made up, dampening current inflation pressures and creating upside risks to our growth outlook for DM economies over the next year. Business inventory restocking is already adding to GDP growth, and there is a race to get goods through all of the bottlenecks and onto shelves ahead of this year's holiday shopping season.

Mounting Headwinds

However, new headwinds to economic activity have started accumulating—these headwinds are expected to moderate demand next year and add to the global economy's downside risks. The goods-demand driven global recovery has underpinned economic growth in China, but has also enabled Chinese authorities to pursue a regulatory crackdown on selected sectors and a more comprehensive tightening of property market policies. Our consequent below-consensus forecast for China's 2022 GDP leads us to expect significant monetary and fiscal easing to stem

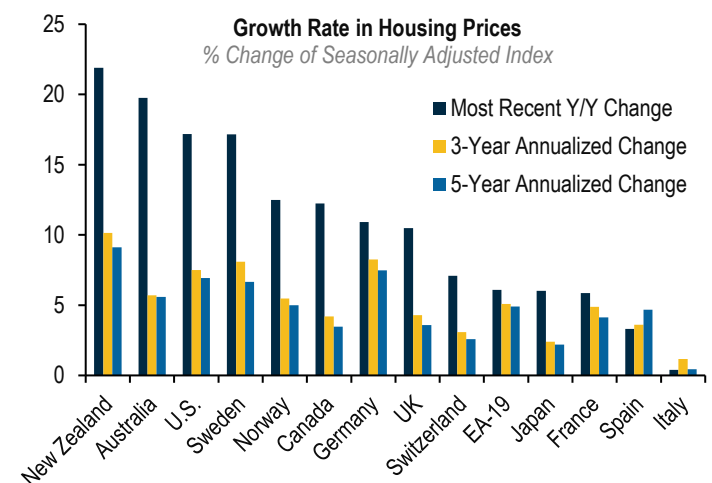
the slowdown, though we do not expect a friendly bailout for Evergrande's off-shore financial creditors. In Europe, and especially the UK, a confluence of factors, such as declining domestic production, cold weather, and competition for energy from Asia, has highlighted the region's vulnerability to energy price spikes. Across the globe, the broad surge in energy prices and higher inflation threaten to erode any improvement in households' purchasing power.

Meanwhile, government COVID support measures have already been rolling off, and the fiscal impulses are turning negative. While additional fiscal packages are still being devised in the U.S., spending in these packages are designed to take place over a long stretch—e.g., 10 years—rather than concentrated in just a quarter or two as the multi trillion-dollar packages during the covid crisis were. Moreover, these new packages are likely to include significant tax increases or fees as offsets. Meanwhile, we are watching for any possible fallout from the termination of a number of targeted schemes, including rent moratoriums and boosted unemployment benefits in the U.S. and furlough schemes in Europe and the UK.

Central Banks on the March

Central banks are also on the move. Considering the persistent inflation and more-than-reflated asset prices—including double-digit increases in house prices in a number of countries (see Figure 1)—many central banks have concluded it is time to unwind at least some of their policy stimulus to lessen the chances of more permanent inflation or exacerbated financial imbalances.

Figure 1: The Trend of Rising Developed Market Home Prices



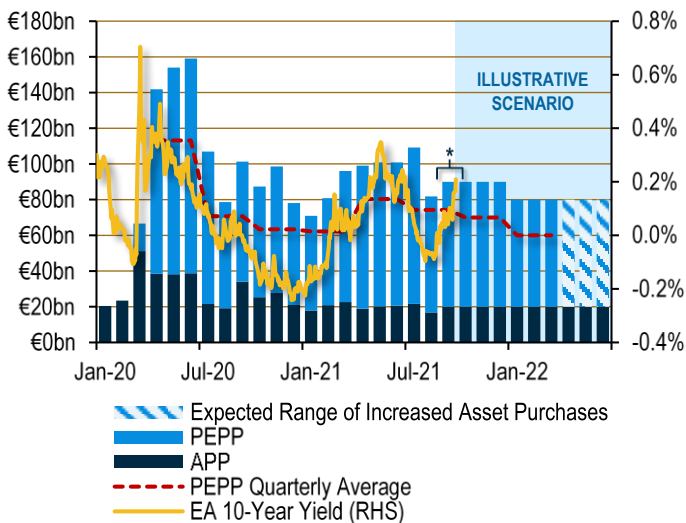
Source: PGIM Fixed Income, Haver, national sources as of June 2021

A number of central banks have either ended or are winding down their QE and credit programs. The Bank of Canada and Reserve Bank of Australia have been tapering their QE purchases, the Bank of England is slated to exhaust its program this December, while the Reserve Bank of New Zealand has already ceased its program. The Federal Reserve is expected to belatedly join the others by

Q4 2021 Global Macroeconomic Outlook

announcing tapering at its November meeting and commencing the process shortly thereafter, likely ending net new purchases by the middle of next year. However, the ECB is likely to lag the other DM central banks, with its PEPP purchases currently scheduled to continue until March 2022. With Europe's economic recovery still somewhat fragile and the ECB's commitment to 2% inflation now stronger, the ECB may well signal late this year that its APP purchases in 2022 could be boosted to take up at least some of the slack once its PEPP program concludes (see Figure 2).

Figure 2: Illustrative ECB Monthly Asset Purchases and Euro Area GDP-Weighted 10-year Yields



Source: PGIM Fixed Income, ECB. *September PEPP purchases assumed to be €70 billion.

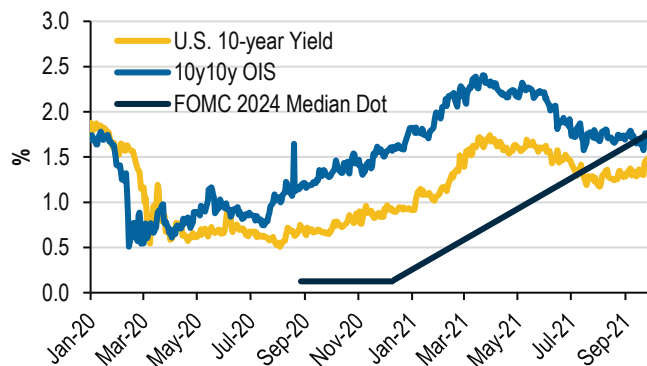
Central bank rate hikes, though, have come into sight as well. A number of EM central banks battling inflation pressures are already well along in the process. The Norges Bank was first out of the chute among DM central banks, with the Reserve Bank of New Zealand following suit in early October. So far, the Fed has been fairly successful in communicating that tapering is a separate decision from rate liftoff and that rate hikes are very unlikely before tapering is complete. But the Fed's dot plot of FOMC participants' rate hike projections moved marginally more hawkish at its September meeting, with half now expecting rate liftoff by the end of next year—modestly more hawkish than our own base case of the first half of 2023. The Bank of England piled on, signaling at its September meeting that it might not even wait until the end of this year to begin its rate hikes. There, too, though, we expect the Bank of England will wind up being modestly more dovish than it appears to be signaling, likely holding off until next year. The UK economy is experiencing a unique double whammy of both Brexit- and COVID-related supply shocks, with rampant labor and essential supply shortages.

For all of these central banks, the current unusual macro environment coming out of this global pandemic heightens the risks of inadvertent policy errors. And the possibility that while policy unwinds might make sense for individual countries, a simultaneous

collective unwind could short-circuit the global recovery. While not our base case—we think central banks would react by delaying or muting their tightening—it nonetheless is a risk going forward. Our base case continues to anticipate a solid global growth backdrop well into next year, as some of the supply bottlenecks ease and G10 central banks let up a bit on the accelerator, allowing for an eventual rollover of inflation pressures as well.

Developed Market Rates

- As the Fed's tapering approaches, it will likely draw a clear distinction between the removal of accommodation via reduction in asset purchases and tightening of policy through rate hikes in the Federal funds target. The front end of the Treasury yield curve is vulnerable to a repricing if inflation data remain elevated, and the slope of the curve will presumably flatten as long-term yields remain range bound and possibly lower with the 10-year yield potentially ending the year in the 1.30-1.40% area.
- As the Fed's projected rate hikes have moved forward, longer-dated yields and forwards have declined (see accompanying chart).



Source: PGIM Fixed Income and Bloomberg as of September 2021.

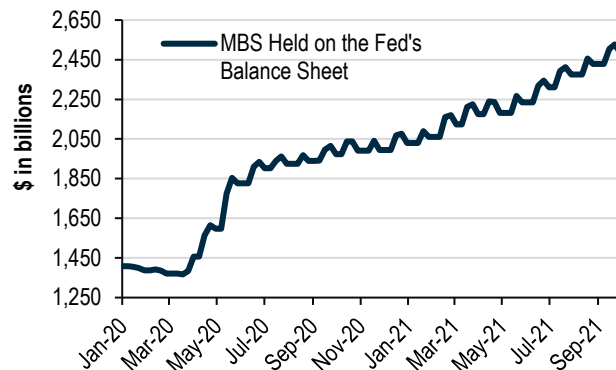
- We also believe that TIPs yields could rise in a Fed-induced liquidity event. Finally, we believe the U.S. Treasury's overfunding and consequent reduction of coupon issuance could have a magnified effect on the 7-year and 20-year segments of the curve, which we continue to find attractive.
- The ECB remains the most accommodative major central bank, but may continue hinting at allowing its PEPP bond buying initiative to eventually run off. We believe the recent selloff in Bund yields appears overdone at this juncture.
- The BoE will likely lead the Fed and the ECB in withdrawing policy accommodation. Distortions in the UK Gilt complex—e.g., a richly priced 10-year real yield of about -315 bps—should begin to normalize, particularly in the event of gradually moderating demand from investors with long-duration needs.

Outlook: Looming central bank developments place an emphasis on tactical positioning across the sector.

Agency MBS

- As we start Q4, the Fed continues to maintain its Agency MBS purchases and reinvestments, but we expect new purchases to decrease monthly beginning in November and end around the middle of 2022. Although we have been expecting a gradual widening in option-adjusted spreads, MBS spreads have

remained firm as strong demand has offset an increase in net supply.



Source: Bloomberg as of October 2021

- Our concerns that the new acting director of the FHFA would reverse policies established under the previous administration were validated in Q3. As revised conforming limits are released in November, given the surge in nationwide home price indexes, we expect UMBS TBA loan sizes to increase over time with a consequent adjustment in valuations. The specified pool market will benefit—although pool selection will be critical—as TBA interest wanes with less Fed activity amid worsening convexity in TBA deliverables.
- In the GNMA space, we expect a Mortgage Insurance Premium cut over the coming months.
- We expect the specialness of production coupons in the TBA market to continue cheapening as the Fed's settlements decline relative to net supply. However, higher coupon dollar rolls may trade to richer implied prepayment assumptions as diminished floats continue challenging accounts willing to wager that cheapest-to-deliver baskets are still widely available. Hedge-adjusted performance of many coupons has improved as MBS investors have preferred pools over TBAs.
- Domestic bank demand should offset concerns about reduced Fed purchases, higher policy risks, and lower TBA roll specialness. As year end approaches and origination takes a seasonal pause, we expect bank demand to increase into December and possibly into Q1 2022 if spreads cheapen enough. Expectations of slower aggregate prepayment speeds and lower dollar prices may also be attractive to yield buyers.

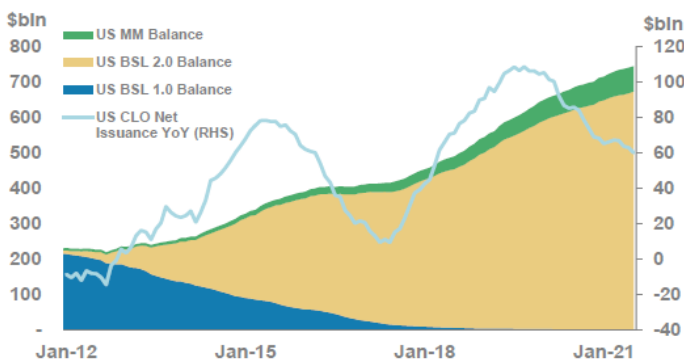
Outlook: Underweight MBS vs. rates in early Q4, but more tactical, underweight positioning in 30-year 2% issues after notable underperformance vs. rates. Still focused on specified pools vs. TBAs, while maintaining a 20-year sector overweight vs. the 30- and 15-year sectors. Reducing exposure to GNMA vs. conventionals.

Securitized Credit

Sector	Subsector	Spread Change (bps)	LIBOR OAS
		Q3	9/30/21
CMBS			
CMBS: Conduit AAA	First-pay 10-year	-2	63
CMBS: Conduit BBB-	BBB-	+79	347
CMBS: CMBS (OTR)	AAA	+5	50
CMBS: CMBS (2012 vintage)	AA	+216	487
CMBS: Agency Multifamily	Senior	-1	17
Non-Agency RMBS			
Legacy	RPL Senior	0	60
Legacy	'06/'07 Alt-A	0	120
GSE Risk-Sharing	M2	-4	161
CLOs			
CLO 2.0	AAA	+1	113
CLO 2.0	AA	-10	160
CLO 2.0	BBB	-40	280
ABS			
Unsecured Consumer Loan ABS	Seniors (One Main)	0	55
Unsecured Consumer Loan ABS	Class B (One Main)	0	75
Refi Private Student Loan	Seniors	-5	50
Credit Card ABS	AAA Credit Card	-5	2

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- Issuance and demand remains steady in the **CLO** market. Although it has experienced significant growth from a gross perspective, which has been driven by refinance and reset issuance, net growth has been more measured (see the accompanying chart).



Source: Morgan Stanley Research, S&P LCD, Intex. Note: 1.0 refers to pre-GFC BSL CLOs.

- Heavy supply, with almost \$300 billion of issuance in the U.S. and about €65 billion in Europe, has kept spreads range bound. U.S. money center banks have been active investors as they continue to deploy cash from deposits.
- We anticipate that spreads will remain range bound. While the Fed's tapering could induce spreads to widen, such a scenario

would conceivably be met with reduced issuance, which could consequently limit the widening.

- In terms of leveraged loan defaults, 2021 may become the lowest-default year of the decade. That said, we remain wary of recovery rates in the event that defaults pick up. We continue to believe the structural protections in AAA and AA CLO tranches will keep them well protected from potential losses.
- **CMBS** property appreciation since early 2020 has been nothing but astounding for the industrial (supported by last-mile logistic facilities) and self-storage property classes, both of which have appreciated by more than 40%. Appreciation in multi-family and strip malls has been solid at 13% and 6%, while lodging, office and malls have depreciated by -4%, -6% and -13%, respectively.
- Although the delinquency rates in hotels and retail remain high, they continue to improve on a quarter-over-quarter basis. We continue to monitor the office sector for a fundamental shift in square footage usage amid protracted work-from-home conditions. However, this is a gradual issue due to the sector's typical long-lease terms.
- Capitalization spreads are generally above trailing four-year averages (except for multi-family and industrial, which are at their averages), which provides some cushion to valuations in the event net operating income softens from here.
- We think AAA conduit and single-asset, single-borrower spreads will remain rangebound and follow the lead of IG corporates.
- In terms of **RMBS**, residential property has advanced from hot to hotter. The surge in home prices reached 18.6% year-over-year through June on the S&P CoreLogic Case Shiller index.
- We believe several factors should keep home prices stable.
 - Low mortgage rates have supported affordability, which remains above—but moving toward—the long-term average.
 - The constrained supply of existing stock and new supply, the latter of which has generally remained low for a decade.
 - Conservative mortgage underwriting and origination has prevented widespread speculation. Distressed supply has not emerged amid generous anti-foreclosure policies.
 - The millennial cohort has reached its peak years of household formation.
 - The spike in delinquent mortgages that emerged at the outset of the pandemic has improved markedly and continues to drift lower.
- In the UK and Europe, significant risk transfer (SRT) opportunities from issuers looking to obtain regulatory/economic capital relief appear attractive, but are difficult to source. We are also constructive on second-pay, non-conforming, and new origination specialist issues from strong sponsors. We remain neutral/negative on senior non-conforming and new origination specialist issues. The relative value of UK RMBS has richened

Q4 2021 Global Sector Outlook

versus European CLOs, and we expect this trend to continue going forward.

- In general, we continue to favor mortgage origination warehouse investments. We also like issues related to iBuyer (instant buyer) transactions and think spreads will tighten as investor participation expands. Non-qualified mortgage and re-performing loan new issues appear unattractive at current spreads. The credit risk transfer market has benefited from conservative underwriting and strong home price appreciation, and we believe these trends will continue through Q4.
- Value in the **ABS** market is hard to come by as spreads remain at levels not seen since before the financial crisis. The increase in gross issuance to \$188 billion, which is 8% ahead of 2019, remains manageable, and net issuance of \$10-\$20 billion should continue to support spreads amid steady aggregate demand.
- While we expect some reversal in consumer credit performance as stimulus programs wane and underwriting standards normalize, we believe these changes will be gradual given the stability in consumer fundamentals.
- Used car prices remain historically high due to strong consumer demand and constraints on new car supply.
- Although forbearance rates on refinanced student loans were never troublingly high, they have declined. The prepay speeds for the collateral remain fast, but below peak, due to low interest rates and borrowers' ability to repay ahead of schedule.
- We favor senior and subordinate classes in branch bank unsecured consumer loans and top-tier subprime auto subordinate issues. Regulatory and economic capital credit risk transfer trades in ABS offer compelling relative value, but are difficult to source in size.

Outlook: A mixed view. Credit curves generally remain flat, keeping us wary of generic mezzanine risk. In the event of a risk selloff, securitized spreads may generally follow other risk markets. Yet, high-quality securitized products look attractive vs. other spread products, particularly at the front of credit curves. We also see value further down in the capital structure for quasi-private ABS.

Investment Grade Corporate Bonds

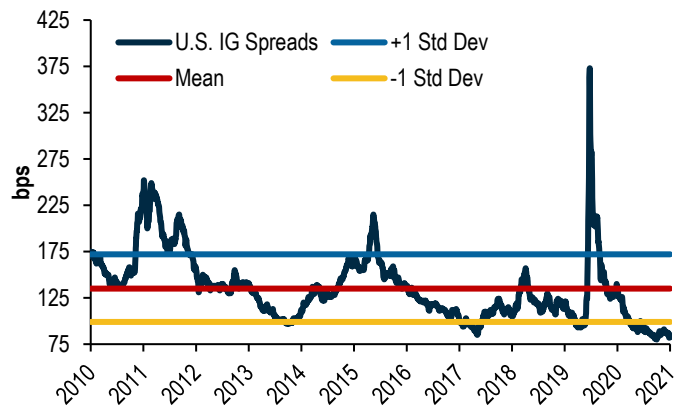
	Total Return (%)		Spread Change (bps)		OAS (bps)
	Q3	YTD	Q3	YTD	9/30/21
U.S. Corps.	0.00%	-1.27%	4	-12	83
European Corps	-2.19%	-5.57%	0	-9	82

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures. All investments involve risk, including possible loss of capital. Represents data for the Bloomberg U.S. Corporate Bond Index and the Bloomberg European Corporate Bond Index (unhedged). Source: Bloomberg as of September 30, 2021. An investment cannot be made directly in an index.

- **U.S. investment grade corporate** bonds remained largely range bound in Q3. Growth concerns and the Fed's tapering plan were countered by solid corporate earnings, favorable credit

fundamentals and strong demand that readily absorbed the heavy pace of new issues.

- Fundamentals remain solid with leverage back to pre-pandemic levels, above-trend earnings growth set to continue, positive ratings trajectories, and many management teams that are still focused on using free cash flow for debt reduction.
- We remain cautiously optimistic over the next few quarters, with spreads near the post-financial crisis tight (see accompanying chart) and the backdrop for investment grade corporates shifting from great to good. It's an environment where record earnings growth gives way to strong earnings growth, central banks across the globe move to a less accommodative stance, fiscal stimulus begins to wane, companies face increased levels of regulatory scrutiny, and management teams adjust their focus from deleveraging to a more balanced use of cash, including higher dividends, share buybacks, and M&A.



Source: Bloomberg as of October 2021

- We favor shorter maturity BBB-rated bonds for their carry along with longer maturity BBB-rated Industrials issued by select companies with upgrade potential or that are set to improve their credit metrics. Energy fits neatly in this category and should benefit from globally strengthening oil and natural gas demand. We see value in banks, which are highly regulated, less subject to event risk, and, in many cases, trade wider than similarly rated Industrials. We also like Utilities, which is a less cyclical sector that offers attractive spreads. We are more cautious on A-rated Industrials, which may be more likely to engage in share buybacks or M&A at the expense of their balance sheets.
- **European investment grade corporate** spreads remained rangebound in Q3. BBB-rated bonds outperformed A-rated bonds as the market continued to look through the pandemic to a more positive growth environment. However, the pace of this spread compression trade slowed over the course of the quarter and to only 1 bp over the last month of Q3.
- We expect spreads to remain reasonably range bound, but believe there is still room for spread compression in BBBs and financials as well as some corporates, which may lead to the potential for very modest index tightening. We prefer non-eligible

Q4 2021 Global Sector Outlook

paper as it generally has more spread and carries an equal amount of credit risk.

- The ECB's buying program continues to provide a strong technical backdrop as does moderating new issuance into year-end. Strong corporate liquidity, recovering credit metrics, and a rebounding European economy should also provide a tailwind. Risks to our outlook include tight spread levels, increased inflation and rising input costs, and more M&A activity that could weigh on corporate credit fundamentals.
- In global corporate portfolios, we continue to hold an agnostic view of USD vs. EUR spreads as we believe there are still ample cross-currency opportunities with varying degrees of attractiveness. Portfolio risk remains at a reasonable level in order to benefit from further spread compression. We also hold a slight overweight in spread duration (long exposure to the euro and USD and short exposure to the yen, Swiss franc, etc.). We still favor U.S. money center banks and BBB-rated bonds.
- We continue to take advantage of price and yield dislocations between EUR and USD bonds of the same and/or similar issuers even as the spread dynamic between the two has reversed, with dollar-denominated IG spreads trading slightly tighter than their euro-denominated counterparts at quarter end.

Outlook: Cautiously constructive over the medium and long term. Expect spreads to remain reasonably rangebound with some potential widening toward year end. Still room for spread tightening in select BBBs, financials, and energy.

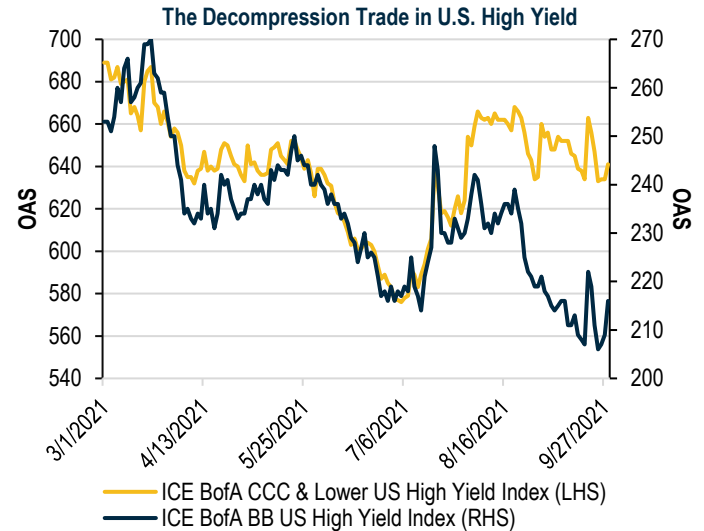
Global Leveraged Finance

	Total Return (%)		Spread Change (bps)		OAS/DM (bps) 9/30/21
	Q3	YTD	Q3	YTD	
U.S. High Yield	0.94%	4.67%	11	-71	315
Euro High Yield	0.67%	3.71%	5	-56	309
U.S. Leveraged Loans	1.13%	4.65%	-5	-48	438
Euro Leveraged Loans	0.96%	3.90%	-6	-56	403

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- **U.S. high yield** bond prices were modestly lower in Q3 as fundamental credit improvement and strong corporate earnings were offset by COVID concerns, rising inflation, and Fed's tapering plan. Still, high yield bonds posted positive returns that was solely generated from coupon income.
- The strong compression amongst the quality tiers seen during the first half of 2021 began to reverse course early in Q3, with BB-rated bonds outperforming CCCs. However, the performance edge eased as higher-rated credits lagged late in

Q3 given the back-up in rates (see the accompanying chart).



Source: Bloomberg and ICE as of September 2021

- Despite spreads at or near post-financial crisis tightness, our two-year outlook is modestly bullish. An uptick in M&A activity is likely to target high yield issuers, while low defaults, improved credit metrics, and a higher-quality market will help drive spread compression going forward.
- Our base case is for high yield spreads to tighten an additional 40 bps by mid-2022 before potentially widening back to current levels in 24 months. Risks to this view include a potentially more hawkish Fed, uncertainty in China, and COVID mutation. As for positioning, we believe B-rated bonds currently appear attractive on a relative-value basis. We are maintaining an overweight to independent power producers, housing, and gaming.
- U.S. leveraged loans posted positive returns in Q3 as fund investors continue to seek out floating-rate assets as a potential hedge against rising interest rates. Meanwhile, institutional demand remains strong amid the ongoing search for yield.
- Looking forward, inflows into loan mutual funds will likely continue given the concerns about rising rates. Meanwhile, CLO creation and refinancing activity remain robust, and we expect this momentum to continue. Our base case is for spreads to continue to grind tighter and loan prices to continue to increase in Q4, albeit at a slower pace than the first three quarters of 2021. For loans, we generally anticipate another 100-150 bps of total return in Q4, with approximately 90 bps of that coming from coupons, 12 bps coming from the base rate, and another 25-50 bps coming from price appreciation.
- The **European high yield** market remained steady and spreads continued to slowly tighten in Q3. Looking forward, we remain cautiously constructive on European high yield and expect 2021 defaults to remain low at 0.8% and 1.0% across bonds and loans, respectively. From a macro perspective, continued concerns around COVID variants, inflation, and slowing growth in China remain risks to our outlook. When combined with a

Q4 2021 Global Sector Outlook

market that has limited upside and a distinct lack of dispersion across quality, we remain somewhat cautious with respect to market-level risk taking. That said, we believe the current benign environment could continue for some time, with defaults to remain low and a reach-for-yield technical keeping valuations well supported.

- In terms of positioning, we are focused on carry opportunities in carefully selected B-rated and CCC-rated credits, with investments weighted towards the best relative-value opportunities. Ultimately, we believe active management and solid credit selection will be rewarded should volatility pick up.

Outlook: Expect spreads to tighten on the back of lower defaults, improved fundamentals, and the global demand for yield. In the near term, the market could remain volatile. Active credit selection will differentiate performance.

Emerging Markets Debt

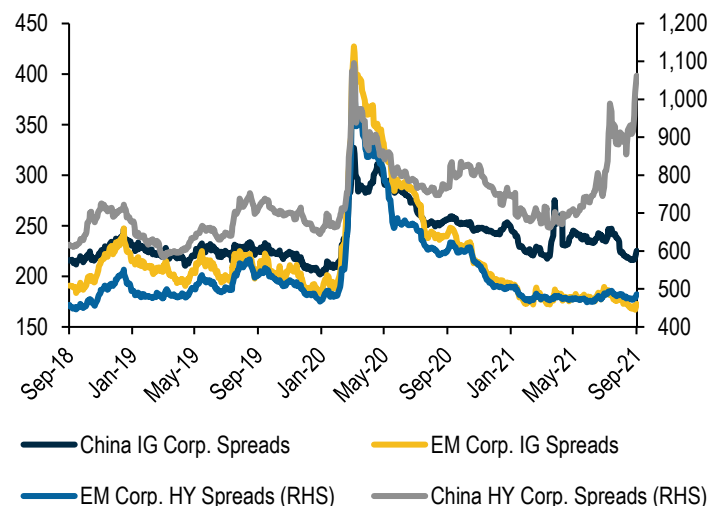
	Total Return (%)		Spread / Yield Change (bps)		OAS (bps) / Yield % 9/30/21
	Q3	YTD	Q3	YTD	
EM Hard Currency	-0.70%	-1.36%	17	5	357
EM Local (Hedged)	-0.92%	-3.80%	0.31	1.08	5.30
EMFX	-1.57%	-2.17%	0.47	1.69	3.25
EM Corps.	0.25%	1.53%	4	-27	301

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- Performance in the EMD sector will likely remain differentiated. In a base case of a post-Delta growth recovery, some inflation relief, improvement in supply chain backlogs, and the near-term avoidance of a policy “mistake” by the Fed or in China, EM assets should move sideways with select under- and outperformers through the end of 2021. Provided liquidity conditions do not deteriorate (even in a tapering context), the relative-value opportunities and attractive absolute valuation in EM spreads, rates, and FX argue for bottom-up, relative-value positioning. We remain cautious in select segments, but recognize the glass is more full than empty even with the recognized tail risks. Looking toward 2022, we’re cognizant of slowing global growth and a busy EM political calendar including elections in Brazil, Colombia, Romania, Hungary, Chile, and Argentina.
- Hard currency** sovereigns and corporates are still our highest conviction allocation. However, recognizing differentiation is imperative as ever: increased debt burdens (among sovereigns), varying policy and fiscal consolidation efforts, funding requirements, commodity price sensitivity, and the political calendar are key to identifying opportunities. We continue to emphasize “barbell” positioning with a targeted mix of assets that can perform well in varying scenarios.

- The long end of our barbell primarily consists of Central and Eastern European and Gulf Coast Cooperation countries as outlooks appear more promising than those in Latin America and valuations appear more attractive than those in Asia.
- Within the higher-beta space at the front end of the barbell, we believe credit differentiation will drive alpha. Some of the weaker issuers that sustained severe fundamental damage without proper policy adjustments will likely underperform. We favor countries, such as the Ukraine and Ivory Coast, that have responded with proper policies with some help from the IMF. Oil exporters Angola and Nigeria also benefit from manageable financing needs. We have increased underweights in fiscally weak and highly indebted issuers, including Egypt, Ghana, and Sri Lanka. There is scope for debt restructuring in defaulted issuers, such as Zambia, Lebanon, and even Venezuela, over the next six months.
- We also find value in quasi-sovereigns, such as Pemex and in very short end issues from Eskom, that benefit from sovereign support and attractive relative spreads. **Corporates** offer attractive relative value against their respective sovereigns, particularly where EM fundamentals are strong (the sector’s net leverage of around 1.4X is the lowest since 2011), revenue streams are diversified, and revenues can benefit from global growth.
- The YTD gross corporate issuance already reached \$420 billion vs. \$500 billion in 2020. We remain highly selective on new issues, and our corporate exposure is largely stable.
- The contagion from China property on other countries/ sectors is relatively contained (see the accompanying chart on EM corporate Spreads). The estimates for EM corporate high yield defaults in 2021 recently rose from 2.5-3% to 5%. However, the ex-China forecast is still only 1.8%.

Evergrande Pulls China HY Spreads Wider; Contagion Remains Limited



Source: PGIM Fixed Income and J.P. Morgan as of September 2021

Q4 2021 Global Sector Outlook

- In **local rates**, our base case is that country dispersion will continue and that it is too early for EM central banks to moderate their hawkish stances. Given the repricing of 2- to 5-year yields up to 2019 levels, we are awaiting signs to add risk over the long term. Key signposts include effects from the Fed's tapering, base-year effect on EM inflation, and the impact of China's slowdown on commodity prices.
- We are overweight to Asia—our biggest overweights include China, Russia, and Indonesia, while maintaining underweights to Poland, Chile, and Colombia. We may look to cover underweights in Brazil and Hungary as priced-in rate hikes have overshot their historical range. Our overall curve positioning consists of underweight positioning in five years and under and overweight positioning from five to 15 years.
- Stable to rising front-end real Treasury yields and slowing global growth should determine the trend in **EMFX**. Looking ahead, a focus on relative value with a small long-USD bias appears logical. A delay in the Fed's tapering could be a welcome development for EMFX, and our view would turn more constructive. Such a development would likely push real rates lower, delay Fed rate hikes, and keep the market flush with liquidity—all of which have historically contributed to positive EMFX performance.
- In an assumed tapering scenario, highly-sensitive cyclical currencies, such as those in commodity-exporting countries, will likely underperform. We are cautious on ZAR, CLP, and COP. Currencies with markedly improved current account balances or current account surpluses, orthodox and hawkish central banks, and low beta to global growth will likely outperform. We are positive on INR, RUB, and KRW.

Outlook: Credit and issue selection remains paramount. Given the sector's dispersion, bottom-up fundamental and relative-value focus will identify outperforming issues. Maintaining a high degree of conviction on EM spreads with restrained positioning given the global crosswinds. Local rates and EMFX may perform well, but global conditions suggest limited allocations.

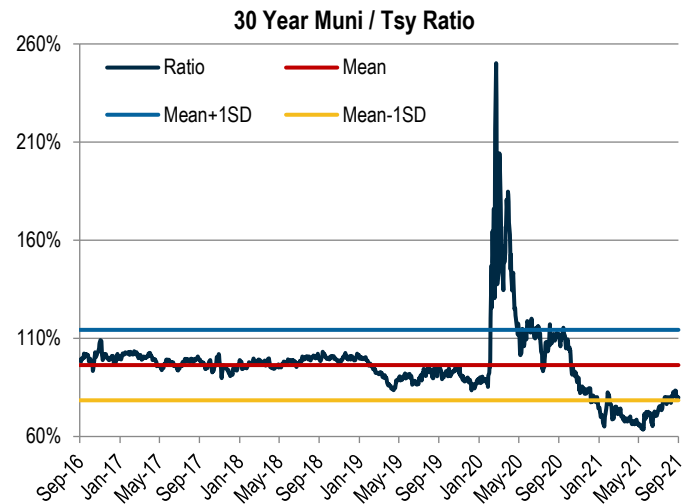
Municipal Bonds

	Total Return (%)	
	Q3	YTD
High Grade	-0.27	0.79
High Yield	-0.38	6.53
Long Taxable Munis	0.44	0.96

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- The relative richness of tax-exempt municipal bonds, combined with expectation of weaker technicals in early Q4, led the long-end of the sector to underperform in Q3. The 10-year and 30-year Municipal/Treasury ratios finished Q3 at 75% and 80%,

respectively, both above the 90-day and one-year averages (see the accompanying chart on the 30-year ratio).



Source: PGIM Fixed Income and Bloomberg Indices.

- After record YTD inflows of \$88.5 billion, the expectation is that inflows should continue through year end unless interest rates suddenly jump higher.
- On the supply side, manageable YTD issuance of \$363 billion (1.5% lower YoY) includes \$100 billion in taxable munis (26% lower YOY). The expectation for negative net supply towards the end of the year should support tax-exempt munis.
- Municipal credit quality remains solid and is expected to remain so going forward considering the economic recovery and federal stimulus funding.
- While the infrastructure bill and the larger Build Back Better bill were not passed by the end of Q3, negotiations continue. Key aspects of the larger bill with the potential to impact supply include a Build America Bond 2.0 program and the return of tax-exempt advance refundings. Based on how well the municipal market is functioning (especially relative to the post-GFC period), we do not see the urgency to include either provision in the final legislation. Increases in personal and/or corporate income tax rates will likely support tax-exempt demand.
- Continued demand and manageable issuance provide a favorable environment for taxable municipals.

Outlook: Positive view based on more attractive valuations and a supportive technical environment into year end.

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Source of data (unless otherwise noted): PGIM Fixed Income and Bloomberg as of October 2021.

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European Investment Grade Corporate Bonds: Bloomberg European Corporate Bond Index (unhedged): The Bloomberg Euro-Aggregate: Corporates bond Index is a rules-based benchmark measuring investment grade, EUR denominated, fixed rate, and corporate only. Only bonds with a maturity of 1 year and above are eligible.

U.S. High Yield Bonds: ICE BofAML U.S. High Yield Index: The ICE BofAML U.S. High Yield Index covers US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, and at least one year remaining term to final maturity as of the rebalancing date.

Important Information

European High Yield Bonds: ICE BofAML European Currency High Yield Index: This data represents the ICE BofAML Euro High Yield Index value, which tracks the performance of Euro denominated below investment grade corporate debt publicly issued in the euro domestic or eurobond markets. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P, and Fitch). Qualifying securities must have at least one year remaining term to maturity, a fixed coupon schedule, and a minimum amount outstanding of €100 M. ICE Data Indices, LLC, used with permission. ICE DATA INDICES, LLC IS LICENSING THE ICE DATA INDICES AND RELATED DATA "AS IS," MAKES NO WARRANTIES REGARDING SAME, DOES NOT GUARANTEE THE SUITABILITY, QUALITY, ACCURACY, TIMELINESS, AND/OR COMPLETENESS OF THE ICE DATA INDICES OR ANY DATA INCLUDED IN, RELATED TO, OR DERIVED THEREFROM, ASSUMES NO LIABILITY IN CONNECTION WITH THEIR USE, AND DOES NOT SPONSOR, ENDORSE, OR RECOMMEND PGIM FIXED INCOME OR ANY OF ITS PRODUCTS OR SERVICES.

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European Senior Secured Loans: Credit Suisse Western European Leveraged Loan Index: All Denominations EUR hedged. The Index is a representative, unmanaged index of tradable, floating rate senior secured loans designed to mirror the investable universe of the European leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

Emerging Markets U.S.D Sovereign Debt: JP Morgan Emerging Markets Bond Index Global Diversified: The Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for U.S.D-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. To be deemed an emerging market by the EMBI Global Diversified Index, a country must be rated Baa1/BBB+ or below by Moody's/S&P rating agencies. Information has been obtained from sources believed to be reliable, but J.P. Morgan does not warrant its completeness or accuracy. The Index is used with permission. The Index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright 2020, J.P. Morgan Chase & Co. All rights reserved.

Emerging Markets Local Debt (unhedged): JPMorgan Government Bond Index-Emerging Markets Global Diversified Index: The Government Bond Index-Emerging Markets Global Diversified Index (GBI-EM Global) tracks total returns for local currency bonds issued by emerging market governments.

Emerging Markets Corporate Bonds: JP Morgan Corporate Emerging Markets Bond Index Broad Diversified: The CEMBI tracks total returns of U.S. dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries.

Emerging Markets Currencies: JP Morgan Emerging Local Markets Index Plus: The JP Morgan Emerging Local Markets Index Plus (JPM ELMI+) tracks total returns for local currency-denominated money market instruments.

Municipal Bonds: Bloomberg Municipal Bond Indices: The index covers the U.S.D-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must be at least 1 year from their maturity date. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment grade (Baa3/BBB-/BBB- or better) by the middle rating of Moody's, S&P, and Fitch.

U.S. Treasury Bonds: Bloomberg U.S. Treasury Bond Index: The Bloomberg U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Mortgage Backed Securities: Bloomberg U.S. MBS - Agency Fixed Rate Index: The Bloomberg U.S. Mortgage Backed Securities (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage.

Commercial Mortgage-Backed Securities: Bloomberg CMBS: ERISA Eligible Index: The index measures the performance of investment-grade commercial mortgage-backed securities, which are classes of securities that represent interests in pools of commercial mortgages. The index includes only CMBS that are Employee Retirement Income Security Act of 1974, which will deem ERISA eligible the certificates with the first priority of principal repayment, as long as certain conditions are met, including the requirement that the certificates be rated in one of the three highest rating categories by Fitch, Inc., Moody's Investors Services or Standard & Poor's.

U.S. Aggregate Bond Index: Bloomberg U.S. Aggregate Bond Index: The Bloomberg U.S. Aggregate Index covers the U.S.D-denominated, investment-grade, fixed-rate or step up, taxable bond market of SEC-registered securities and includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS sectors. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities. There is over U.S.D 9.9 trillion indexed or benchmarked to the index, with indexed assets comprising approximately U.S.D 3.4 trillion of this total. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

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