

2024 GLOBAL FIXED INCOME OUTLOOK

Opportunity knocking

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

Sitting in cash may mean missed opportunities

The world appears to have moved beyond the height of interest rate hikes, inflation and economic acceleration. We expect rates and economic growth in the U.S. to plateau for a couple of quarters ahead of rate cuts and a mild recession in the second half of 2024, with a similar picture for Asia Pacific and Europe. This leads us to encourage investors to consider overweighting fixed income in portfolios to take advantage of today's yields and deploy cash into areas of relative value. Sitting in cash may result in missed opportunities.

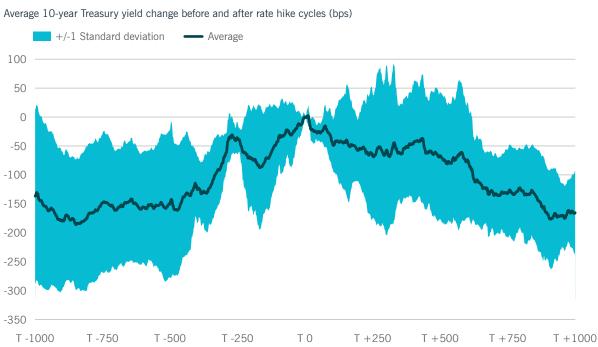
U.S. interest rate outlook

- We believe the U.S. Federal Reserve (Fed) is done hiking interest rates, and attention should increasingly turn to the pace of rate cuts. Given our outlook for modest rate cuts to start this year, we expect the Treasury yield curve to move lower.
- Rate cuts should help alleviate hedging cost pressures, likely attracting foreign demand back into the Treasury market. The Fed may also end its balance sheet runoff policy, further alleviating the excess supply of Treasuries.
- We believe fair value for the 10-year Treasury yield in the medium-term is around 3.50%. That includes a real rate of around 1.50% plus 2.00% inflation.

U.S. GDP growth is likely to slow in 2024

We expect real U.S. gross domestic product (GDP) growth to decline from around 3% annual rate in 2023 to 1% in 2024. Government spending and net exports, which provided tailwinds in 2023, are likely to revert to flat or slightly negative. Consumer spending should remain healthy, but slow somewhat. Direct capital investment will likely be mixed, with a further slowdown in non-residential investment and a rebound in housing activity.

Figure 1: Bonds tend to rally after rate hikes end



Data source: Bloomberg, L.P. Performance data shown represents past performance and does not predict or guarantee future results. Data depicts the average and +/- one standard deviation in the 10-year Treasury yield in basis points from 1,000 days before to 1,000 days after the end of all Fed rate hiking cycles since 1974 (1974, 1980, 1984, 1987, 1989, 1995, 2000, 2006 and 2018).

U.S. inflation offers optimism, but be prepared for further squeezes

Our base case is for core inflation to end 2023 around 3.2% and end 2024 around 2.75% - 3.00%. This view is driven by:

- A material deceleration in both operating expense ratio and rent, which is set to normalize near 3% annualized by mid-2024.
- A slowdown in non-housing core services from around 4% to 3% annualized next year.
- Near-zero goods price inflation amid the ongoing pivot from manufactured goods toward services.
- Stabilizing energy prices, which have gone from a big tailwind last year to a drag this year.

However, upside risks remain.

- Housing prices have rebounded somewhat recently, and given the usual lag of ~15 months between actual housing market activity and housing prices in the inflation data, there may be upside risks to housing inflation in late 2024.
- Energy prices reflect international dynamics, and uncertainty in the Middle East could weigh heavily.
- Wage inflation has been decelerating, along with the softening in the labor market, which helps moderate core services inflation. If the labor market remains stronger than we anticipate, there may be upward pressure on wage inflation and ultimately on price inflation via core services.

Global macro trends follow the U.S.

We expect macroeconomic dynamics in most developed market economies to mirror the U.S. In particular, we forecast tepid GDP growth around 1.0% next year for the U.K. and Europe. GDP rates should be similar in Japan, representing a better outcome given the lower rate of potential growth. We anticipate a rise in unemployment to around 4.4% in the U.S. and 7% in Europe. We forecast further softness in China,

with full-year growth of 4.2%, lower than consensus. Inflation in developed markets is likely to decelerate further, allowing central banks to cut rates. The European Central Bank (ECB) will likely kick things off in early 2024.

U.S. labor market looks set to cool

We expect the pace of job creation to continue slowing — from around 300,000 per month at the start of 2023, to around 200,000 per month today, to 100,000 in early 2024 — exerting upward pressure on the unemployment rate. The Fed's *Summary of Economic Projections* anticipates an unemployment rate of 4.1% next year, while the private consensus is 4.4%. We think the risks are skewed toward higher unemployment.

Several cyclical measures of labor market strength are already cooling substantially, including manufacturing overtime hours worked, the number of temporary help employees and the private quits rate. As the labor market cools, other indicators, such as the number of job openings, quits rate, initial and continuing jobless claims, will likely continue deteriorating as well. This should exert downward pressure on wage inflation, which is likely to fall from 5% annualized today to below 4% next year.

Fed funds target remains in flux

We currently anticipate 150 basis points (bps) of rate cuts next year due to two main dynamics. Inflation should decelerate further, making real interest rates rise in the absence of rate cuts, and economic growth is expected to slow.

In a bear case such as an outright recession, we would anticipate substantially more rate cuts next year, likely closer to 200 bps In a bull case where inflation remains high and growth does not deteriorate, we would anticipate zero rate cuts in 2024. We expect the ECB to start cutting rates early in 2024, with 50 bps by mid-year and another 75 bps in the second half.



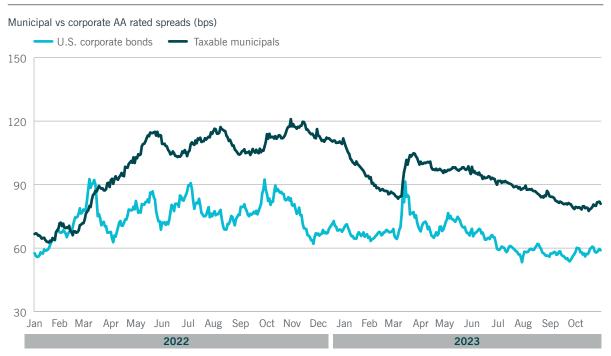
Sector outlook



Taxable municipal bonds

- Taxable municipal valuations enter 2024 at attractive levels for investors. The Bloomberg Taxable Municipal Bond Index yield approached 6% during the fourth quarter of 2023. While interest rates have moderated since their peak, current absolute taxable municipal yields remain at levels rarely seen in the last decade. In this environment, investors may enjoy attractive total returns through income alone.
- More telling is that taxable municipal bonds offer wider credit spreads than corporate bonds across AAA, AA, A and BBB rated bonds. With strong credit fundamentals and technical factors, municipal bonds can provide portfolios with resiliency amid economic uncertainty.
- Looking ahead, we believe the environment is poised to improve in 2024. While the Fed's torrid pace of rate hikes has impacted taxable municipal bond yields, credit fundamentals remain strong, and finances are expected to remain resilient during a potential economic slowdown.
- Investor demand for long-duration taxable
 municipal bonds has picked up significantly, and
 we expect more total return focused investors to
 participate once they have confidence the Fed is
 done hiking. New issue supply was suppressed
 throughout 2023 by rate volatility, and tightening
 supply could spark a rally given returning
 demand. If sentiment shifts positively as we
 expect, strengthening demand could quickly
 absorb secondary market supply and act as
 another catalyst for spread tightening in a lowsupply environment.

Figure 2: Taxable municipal credit spreads remain dislocated relative to corporate bonds



Data source: Bloomberg, L.P., 31 Dec 2021 – 31 Oct 2023, shown daily. Spread represents option adjusted spread (OAS). **Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: taxable municipals:** Bloomberg U.S. Taxable Municipal Bond Index; **U.S. corporate bonds:** Bloomberg U.S. Corporate Bond Index.

Investment grade credit

- Credit fundamentals are showing evidence of expected deterioration. Higher interest expense is pressuring coverage ratios lower and leverage has ticked up modestly. These metrics will likely weaken further amid high financing costs and potentially softening consumer spending. Credit card and auto delinquency rates have risen as excess savings for a large swath of consumers have been exhausted and the resumption of student loan payments further restricts household spending. These factors inform our cautious mediumterm outlook and our forecast for modestly wider spreads.
- 2023's supportive technical backdrop may not persist in the near term, with seasonally high levels of issuance expected in the first quarter of 2024. We anticipate that the lack of 10-year+ corporate issuance will persist and credit curves will remain flat.
- We favor longer duration bonds to take advantage
 of the supply and demand imbalance, but we see
 some value at the front end of the curve. Issuers
 with strong financials, low leverage and ample free
 cash flow should continue to draw demand, as the
 sector provides defensive characteristics as growth
 is expected to slow. We favor telecommunications,
 energy, utilities and banking in 2024.

Preferred securities

- After a rocky spring, the 2023 U.S. bank stress test showed strong balance sheets in the face of dire economic conditions, with exams using commercial real estate as a primary area of stress. Additionally, bank earnings on average during the third quarter were better than expected. We believe heightened regulations are net positive for credit investors, including preferred and AT1 contingent capital (CoCo) investors, as they should improve the overall soundness of the banking system.
- Net issuance was negative in 2023, as issuers
 redeemed more paper than they issued, creating
 a supportive supply technical not found elsewhere
 in fixed income. Issuance has slightly increased
 recently in attractive structures with high initial
 coupons. Use of proceeds for existing deals has
 been used to repay near-term/currently callable
 preferreds, so these new issues do not materially
 change the supportive supply environment.
- Valuations look fair to modestly attractive. \$25 par preferreds are at slightly lower option-adjusted spreads (OAS) versus longer-term median levels, and USD CoCos OAS are trading at the narrow end of their historical range to \$1000 par preferreds. We continue to favor \$1000 par preferreds for their higher OAS versus \$25 par preferreds and see a compelling opportunity in CoCos as well. Broadly speaking, most securities currently trade at significant discounts to par. For example, the average dollar price of securities within our blended index was \$87 as of 31 Oct 2023.¹ In addition, discount priced securities with non-fixed rate coupons could also reset higher over time.

Figure 3: Preferred spreads remain attractive



Data source: Bank of America, Nuveen, 30 Nov 2023. Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: \$1000 par preferred: market capitalization-weighted blend of the ICE BofA U.S. Investment Grade Institutional Capital Securities Index and the ICE BofA U.S. High Yield Institutional Capital Securities Index; \$25 par preferred: ICE BofA Core Plus Fixed Rate Preferred Index; contingent capital (CoCo): ICE BofA Contingent Capital Index.

Securitized credit

Asset-backed securities (ABS)

- Consumer and commercial credit performance
 has shown signs of stabilization, but risks remain
 where asset valuations have come under pressure,
 such as triple net lease. In many cases, these
 sponsors were able to access the ABS new-issue
 market, bolstering their liquidity.
- We are proceeding with caution regarding credit risk, and will remain data-driven as the market and economy are still cresting. We would expect some performance bifurcation between consumer- and commercial-based ABS in 2024 if the economy slows, with lower-quality credit card and auto deals seeing the first delinquencies/defaults.

Commercial mortgage-backed securities (CMBS)

- With the market forecasting 2024 as the year of rate cuts, the path to those cuts will make a big difference for investors. Usually, CMBS initially lag during a broader risk asset rally, though eventually higher-quality CMBS meaningfully tighten given historically wide current spreads and low risk profile, while lower-quality/rated bonds maintain current volatility until collateral price appreciation becomes more certain.
- If negative U.S. GDP growth precipitates faster rate cuts, CMBS spreads would likely widen even further and struggle in 2024. In an aggressive rate steepening scenario, highest quality and floatingrate securities would likely hold up better, but

the entire commercial real estate market may see significantly fewer building transactions, further hurting the sector overall.

Mortgage-backed securities (MBS)

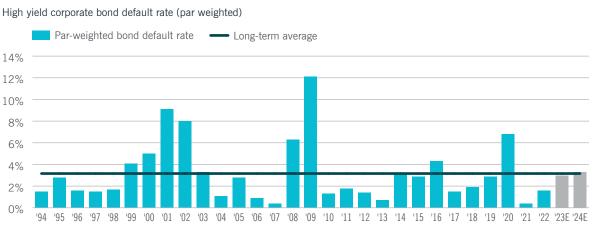
- Mortgage market fundamentals remain strong, despite a decline in home sales and higher interest rates. Home supply is low and rents are high, but rising mortgage rates have cooled issuance. Our outlook for agency MBS is favorable for high-grade portfolios, as the sector is fully extended and valuations are attractive. Yields for BBB and lowerrated MBS remain more compelling than similarly rated corporate credit, although with limited total return potential.
- Falling rates could spur a rise in issuance, but it remains to be seen how a slowing economy may affect demand for housing. We expect high levels of demand may moderate slightly, but will continue for the foreseeable future given the dramatic undersupply of U.S. housing.

Leveraged finance

U.S. high yield corporates

• Fundamentals remain robust, with nearly half of the outstanding debt rated BB and just about 10% rated CCC. The 2020 downturn and defaults cleansed the market of the weakest companies, while a wave of fallen angels resulted in more higher quality issuers in the market.

Figure 4: High yield corporate fundamentals remain robust



Data source: JPMorgan, 1994 – 2024 estimate. Performance data shown represents past performance and does not predict or guarantee future results.

- Technical factors remain solid. While we expect
 gross issuance to increase meaningfully from 2022
 and 2023 levels, activities should largely be driven
 by refinancing deals. As a result, we foresee net
 supply to continue to fall short of natural demand,
 driven by maturities, rising stars and calls/tenders/
 reinvestment. In addition, retail fund flow has
 turned notably positive.
- Entering 2024, we are positioned defensively against a slowing economy and the lagged effects of higher funding costs on corporations. We continue to favor non-cyclical sectors and higher-quality issuers, and remain cautious on lower-rated, private issuers. We foresee increased credit deterioration and price volatility in the latter category, which could provide opportunities for active managers. In the primary market, we see attractive opportunities in secured debt, as issuers with large balance sheets refinance senior loans to capture a slightly lower coupon and diversify access to capital. We expect this trend to continue in 2024.

Broadly syndicated loans (BSL)

- Outperformance continued in 2023, driven by three main factors: increases in the fed funds rate flowing through to higher income levels; a benign default environment leading to stable prices; and balanced supply and demand, as collateralized loan obligation (CLO) formation coupled with institutional demand was relatively in line with new issue supply.
- Lower quality segments outpaced higher quality, even though a higher fed funds rate translates into a higher financing cost environment for leveraged finance borrowers. However, beginning in 4Q 2023, higher quality loans have outperformed lower quality. We see a lack of buyers forming for lower quality risk, as the market understands that rates will be higher-for-longer, and 3Q 2023 earnings season showed dispersion between lower quality and higher quality borrowers. Looking forward, we expect an increase in new issue supply in 2024 and continued demand from both new issue CLO formation and institutions.

- We believe we are at the beginning of a default cycle, one that should take defaults modestly higher than long term averages, but importantly concentrated within lower quality issuers. As important, under realistic fed funds and economic growth scenarios, credit metrics for lower quality loans could result in a significant increase in downgrade activity to CCC levels, causing significant price deterioration as CLO investors are forced to right size their riskiest exposures.
- In 2024, we believe investors may benefit from high-single-digit income levels coupled with opportunities to generate mid-teen total returns from mispriced discount loans.

Collateralized loan obligations (CLOs)

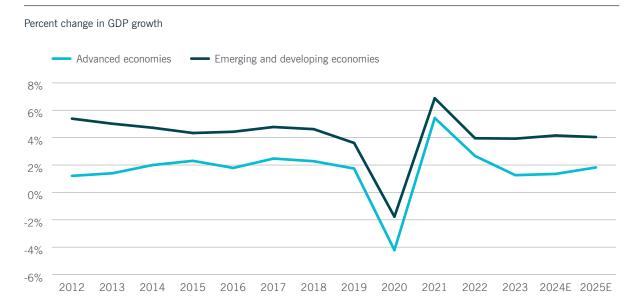
- U.S. new issuance is expected to reach \$100 billion in 2023 across more than 200 deals, compared to the ~\$110 billion across 250 deals in 2022. The U.S. BSL CLO market has reached over \$888 billion. The pace of new warehouse creation continued to slow in Q3 to below the all-time lows set in Q2 of 2020, but is expected to pick up to align with expected new issuance activity.
- A number of 2H 2022 vintage CLOs have come into the market to extend their reinvestment periods once they exited their non-call periods. We expect this to continue through early January 2024, as the 2H 2022 vintage transactions had the widest cost of liabilities in 2022 post the Russia-Ukraine macro event. We expect this refinancing/reset activity to continue through 2024, as deals issued in 2022 with two-year non-call periods become in-themoney for a transaction.
- CLO liability spreads continued to tighten during the second half of 2023 but remain at historical wides. New issue spreads remain somewhat wide compared to historical levels for top tier managers, but are expected to tighten in 2024, as U.S. bank RWA regulation changes may bring back more demand for AAAs. Spreads could tighten from their 170 180 level at the end of the year to 150 160 by mid-year next year.

Emerging markets debt (EM)

- We believe global macro risks are more balanced, a
 welcome change from recent persistent headwinds.
 The Fed and central bank tightening, historic U.S.
 dollar strength and rampant inflation all forced
 emerging markets to adjust to the realities of
 tighter financial conditions sooner than most other
 asset classes.
- Total return potential remains attractive under a higher-for-longer interest rate regime, and high yields help provide a buffer if spreads drift wider throughout the year. While the global growth picture for EM appears solid, tailwinds could accelerate if China's economic performance surprises to the upside, or if better synchronization of growth materializes across developed markets outside the U.S.
- If the rate cutting cycle is deeper than currently anticipated, EM sovereigns stand to benefit given their longer-duration profile. EM local markets offer compelling yields with additional levers to outperform through rates if the Fed shifts to easing and FX if the USD declines over the medium-term. EM corporates continue to offer attractive yield and

- spread pickups to their U.S. investment grade and high yield counterparts.
- Following a prolonged, multi-year period of outflows, positioning in EM is quite light going into 2024. What's more, the technical backdrop is further supported by the expectation for net negative supply in high yield sovereigns and EM corporates.
- Fundamentals remain a critical watchpoint, as our process relies heavily on favorable country and security selection. We expect continued ratings stabilization among sovereigns, with more upgrades than downgrades, and the scope for potential sovereign defaults is diminishing. The EM high yield corporate fundamental picture also appears cleaner, as defaults are expected to halve from elevated levels in 2022/23.
- 2024 should be a heavy election year, with nearly
 a quarter of the sovereign benchmark market
 value going through some form of legislative and/
 or presidential elections. While there is potential
 for pockets of domestic idiosyncratic risk events,
 for many of the larger countries like Indonesia,
 Mexico and India, we expect continuity with lower
 likelihood of surprises.

Figure 5: Growth gap expected to remain wide between advanced and emerging economies

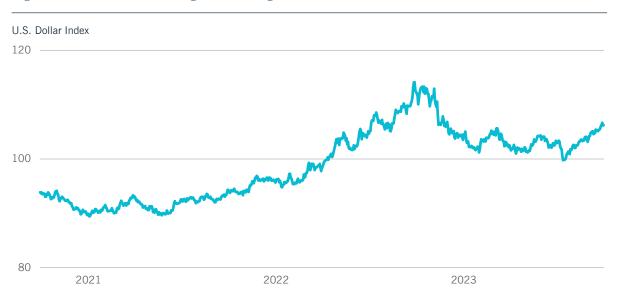


Data source: International Monetary Fund, 2012 – 2025 estimate. Performance data shown represents past performance and does not predict or guarantee future results.

Non-U.S. developed markets (DM)

- · Global macro risks appear more balanced, but lingering uncertainty about global inflation and non-U.S. developed market (DM) growth, along with fair valuations for credit, lead us to favor up-in-quality trades. While U.S. economic activity has been surprisingly robust, European growth has slowed more dramatically. China's economic performance and growth synchronization with DM outside the U.S. remain unclear. Despite our bias for higher quality, we expect spread products to perform well amid solid credit fundamentals, sound technicals and the income cushion provided by higher all-in yields compared with the start of 2023.
- · The disinflation process and the scope of Fed easing expectations in 2024 will remain a major source of market uncertainty. We believe it will be
- important to remain nimble. Global inflationary pressures have slowed overall, but tight labor markets and service prices remain concerning. Europe stands out with strong disinflation trends and weak 2024 growth. These factors should support the ECB cutting rates, likely in the first half of 2024. That, coupled with weaker growth prospects, leads us to a duration-neutral posture. Japanese Government Bonds have lagged the recent rally in global DM. While the Bank of Japan is likely to move away from negative real interest rate policy, we believe monetary tightening will remain gradual, leading us to reduced underweight.
- U.S. dollar strength is likely to reassert itself in the short-term given still robust positive real yield differentials and a less convincing non-U.S. global growth backdrop, but we expect an eventual reversal in the medium term as the Fed reaches its terminal rate.

Figure 6: The U.S. dollar has gained strength



Data source: Bloomberg, L.P., 2021 – 2023. Performance data shown represents past performance and does not predict or guarantee future results.

Impact investing

- Global green, social and sustainable (GSS) issuance has grown from just over USD \$200 billion in 2018 to approximately \$900 billion in 2022. Full-year 2023 issuance should come in somewhere between 2022's level and 2021's record volume of nearly \$1.1 trillion.
- We expect 2024 issuance to challenge the \$1 trillion mark. Use of proceeds green bonds that fund renewable energy projects are expected to remain the largest segment of the labelled GSS market in 2024. This is because global energy grids continue to transition away from fossil fuels as the cost of renewables declines. We also expect increased securitized issuance backed by distributed solar and electric vehicles (EVs), thanks to a favorable combination of provisions in the Inflation Reduction Act (IRA), on-going reduction in costs for solar arrays and electric vehicles, and a lower yielding environment, all of which contribute to increasing affordability of the technology.
- We expect no more than two debt-for-nature swaps in 2024. The structure is appealing to support and finance marine area conservation and sustainable fishing innovations and could be expanded to include other nature conservation outcomes. But the programs are complex and difficult to design, monitor and execute, limiting the number of deals that can come to market in a given year. Critically, underwriters and prospective investors must keep potential issuer identities out of market view to avoid a situation in which emerging market speculators bid up outstanding bonds ahead of the tender, limiting the debt service relief the swap provides the issuing country.
- We do not anticipate issuance of use of proceeds or "green" U.S. Treasuries in 2024. Despite issuance of green sovereigns from Germany, France, U.K., Italy and other developed and emerging markets issuers in recent years, plus the passage of the IRA in 2022, it is hard to envision a pathway for such issuance given a divided Congress in a presidential election year.
- Sustainability linked bond (SLB) issuance should continue to fade in 2024. Issuance was slow following the inaugural deal in 2019, but the market priced \$96B and \$76B of SLBs in 2021 and 2022, respectively. New SLB deal flow dropped materially in 2023 (down 26% YoY through November 13), as investors became appropriately skeptical of the structures. A lack of transparency and issuer-level accountability hurt these bonds, which suffer from structural gamesmanship that can nullify or neuter financial repercussions to the issuer. Instead, we favor use of proceeds instruments. To the extent 2024 offers a further slowdown in issuance and deal flow, we may see an end to the current version of the structure soon.



For more information, please visit nuveen.com.

Endnotes

Sources

1 Source: Bloomberg LLC. Based on 60% ICE BofA U.S. All Capital Securities Index/40% ICE USD Contingent Capital Index.

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation buy, sell or hold a security or an investment strategy, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her financial professionals.

The views and opinions expressed are for informational and educational purposes only as of the date of production/writing and may change without notice at any time based on numerous factors, such as market or other conditions, legal and regulatory developments, additional risks and uncertainties and may not come to pass. This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, estimates of market returns, and proposed or expected portfolio composition. Any changes to assumptions that may have been made in preparing this material could have a material impact on the information presented herein by way of example. **Performance data shown represents past performance and does not predict or guarantee future results.** Investing involves risk; principal loss is possible.

All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such. For term definitions and index descriptions, please access the glossary on nuveen.com. **Please note, it is not possible to invest directly in an index.**

Important information on risk

Investing involves risk; principal loss is possible. Debt or fixed income securities are subject to market risk, credit risk, interest rate risk, call risk, derivatives risk, dollar roll transaction risk and income risk. As interest rates rise, bond prices fall. Below investment grade or high yield debt securities are subject to liquidity risk and heightened credit risk. Preferred securities are subordinated to bonds and other debt instruments in a company's capital structure and therefore are subject to greater credit risk. Foreign investments involve additional risks, including currency fluctuation, political and economic instability, lack of liquidity and differing legal and accounting standards. Asset-backed and mortgage-backed securities are subject to additional risks such as prepayment risk, default risk and adverse economic developments. The value of convertible securities may decline in response to such factors as rising interest rates and fluctuations in the market price of the underlying securities. Senior loans are subject to loan settlement risk due to the lack of established settlement standards or remedies for failure to settle. These investments are subject to credit risk and potentially limited liquidity, as well as interest rate risk, currency risk, prepayment and extension risk, and inflation risk. Investors should contact a tax professional regarding the appropriateness of tax-exempt investments in their portfolio. If sold prior to maturity, municipal securities are subject to gain/losses based on the level of interest rates, market conditions and the credit quality of the issuer. Income may be subject to the alternative minimum tax (AMT) and/or state and local taxes, based on the state of residence. Income from municipal bonds held by a portfolio could be declared taxable because of unfavorable changes in tax laws, adverse interpretations by the Internal Revenue Service or state tax authorities, or noncompliant conduct of a bond issuer. It is important to review your investment objectives,

Nuveen, LLC provides investment solutions through its investment specialists.

This information does not constitute investment research as defined under MiFID.

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

