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A TIAA Company

VIEWPOINTS FROM THE GLOBAL INVESTMENT COMMITTEE
2023 OUTLOOK

Peaks and valleys

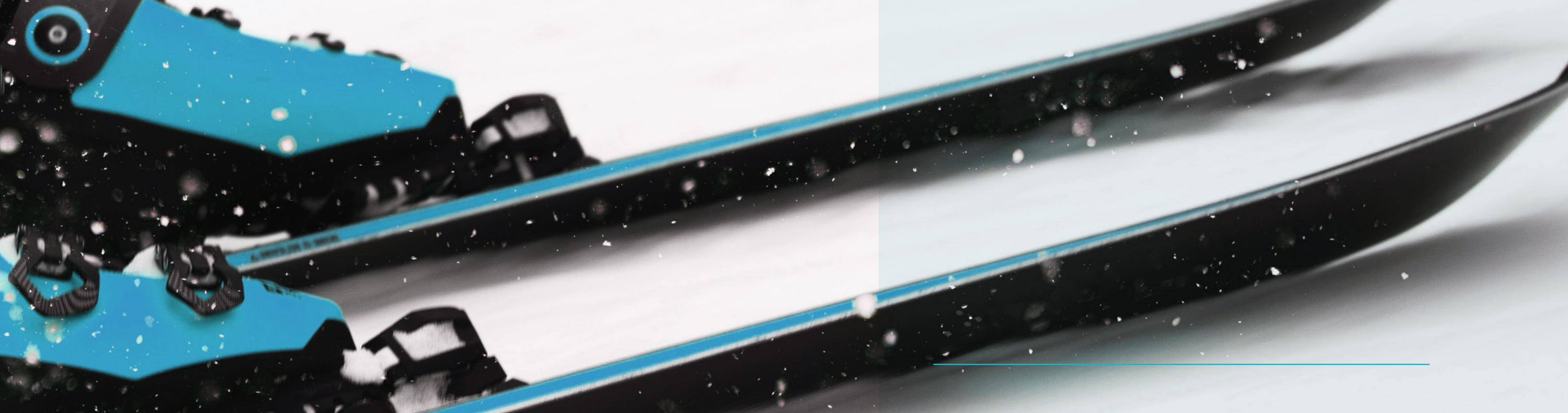
Navigating the rocky market landscape

KEY TAKEAWAYS

1. ***Inflation and pressure from interest rate hikes are likely to ease in 2023, but recession risks are growing.*** Our base case is for a mild recession in the U.S., but a worse environment in Europe.

2. We believe investors should focus on ***non-cyclical asset classes and investments*** that are less correlated with economic growth.

3. Additionally, we suggest ***modestly extending duration*** and carefully assessing the balance between public and private markets given the sharp public markets selloff.



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Peaks and valleys

Navigating the rocky market landscape

Saira Malik
Chief Investment Officer

As Nuveen's CIO and leader of our Global Investment Committee, Saira drives market and investment insights, delivers client asset allocation views and brings together the firm's most senior investment leaders to deliver our best thinking and actionable investment ideas. In addition, she chairs Nuveen's Equities Investment Council and is a portfolio manager for several key investment strategies.

Entering the fourth quarter of 2022, our outlook acknowledged a hard truth for investors nursing wounds from the steep market downturn: *We're not out of the woods yet*. That theme still holds, but the contours of the investment landscape have evolved. One primary obstacle — stubbornly elevated inflation — looks a little less imposing, while another — a projected recession affecting countries around the globe — has been brought into sharper relief.

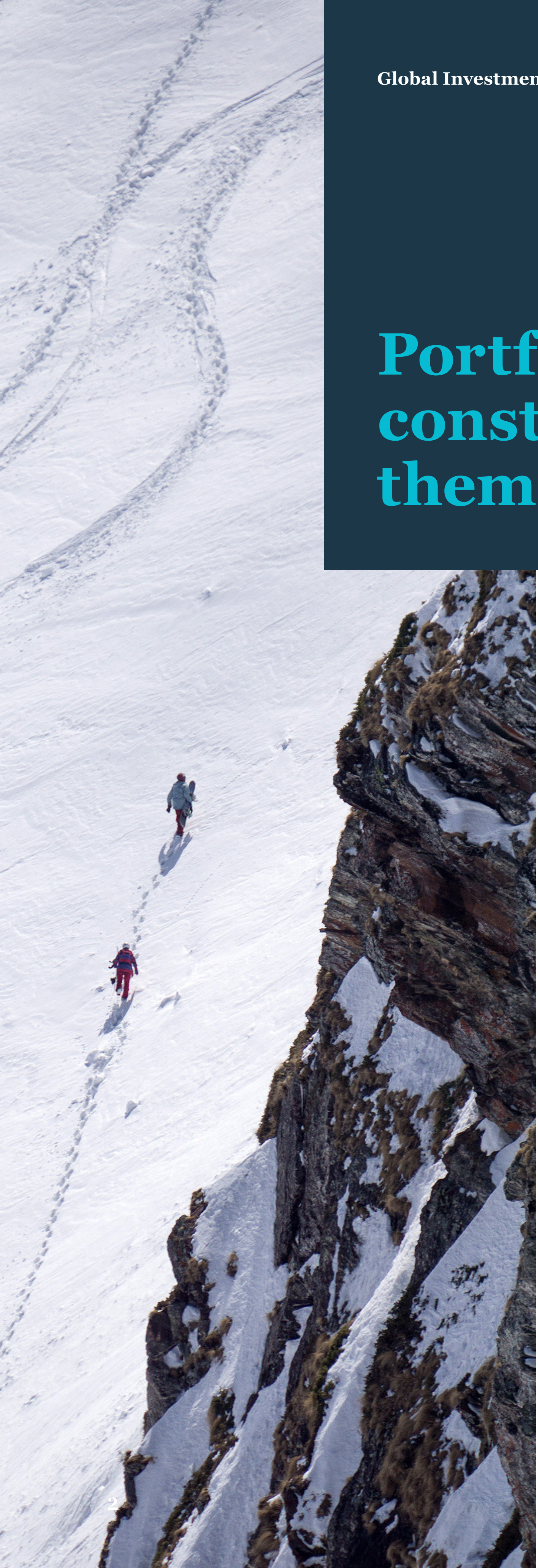
In the U.S., we think inflation peaked in October, with both headline and core CPI readings showing significant year-over-year declines. This was the data investors had long been waiting for, and they expressed their approval by sparking outsized relief rallies. This initial descent from the inflation summit is welcome, but it takes more than one data point to make a trend. And even a downhill climb can have its treacherous moments.

Meanwhile, the second main obstacle — a recession widely seen as inevitable — looms as large as ever. The shift from inflation risk to recession risk reflects the impact of aggressive monetary tightening by the world's central banks, which have fixated on inflation-fighting at the expense of economic growth. Even with inflation starting to moderate (at least in the U.S.), there is no guarantee that central bank policy rates will follow suit. In fact, in November, Fed Chair Jerome Powell conveyed that rates are likely to remain "higher for longer" — posing continued challenges to the economy and investment markets.

Which asset allocation decisions may be best suited to this shifting backdrop? We suggest emphasizing these central themes:

- **Adopt a less cyclical stance.** The increased likelihood of a recession, and the price deflation that would accompany it, poses a risk to already challenged corporate revenue growth. In equities, this makes us more cautious toward cyclical areas, while favoring quality, dividend growth and public infrastructure.
- **Strengthen core bond holdings.** After an atypical year in which bonds failed to provide meaningful diversification benefits or ballast to portfolios, we think conditions now warrant a modest increase in duration through higher-quality investment grade credit and municipal bonds.
- **Carefully assess public vs. private allocations.** While most public markets were broadly and deeply negative in 2022, private markets were relatively insulated from the turmoil. As a result, some investors may feel they have a potential portfolio imbalance between the two. Ultimately, the right balance between publics and privates will vary depending on investor needs and portfolio objectives. But we see differentiation across and within asset classes. Among private assets, we are highly constructive on private credit, given its defensive nature and strong fundamentals. And we also like farmland as an inflation hedge. We are seeing some growing near-term risks in areas of private real estate, while finding solid opportunities in public REITs.

On balance, the economic and market landscape in 2023 may look slightly different than it did in 2022, but investors should continue to anticipate some rough and occasionally unforgiving terrain. We invite you to read on for our perspective on opportunities to make the trek ahead.



Portfolio construction themes

The economic backdrop that investors have been anticipating appears to be on the horizon *— easing inflation and less aggressive central banks (although the U.S. Federal Reserve is likely to continue tightening, albeit at a more measured pace), but also an increasing likelihood of recession. Our 2023 portfolio construction themes center on seeking resilience through investments that can power through a cyclical downturn and provide the ballast that has eluded investors in 2022. And, at the same time, account for the damage in public markets and the consequential imbalance in private markets.*

Asset class "heat map"

Our cross-asset class views indicate where we see the best relative opportunities within global financial markets. These are not intended to represent a specific portfolio, but rather to answer the question: "What are our highest conviction views when it comes to putting new money to work?" These views assume a U.S. dollar-based investor seeking long-term growth and represent a one-year time horizon.

The views above are for informational purposes only and relate a comparison of the relative merits of each asset class based on the collective assessment of Nuveen's Global Investment Committee. These do not reflect the experience of any Nuveen product or service. Upgrades and downgrades reflect quarterly shifts in these views.

Portfolio themes

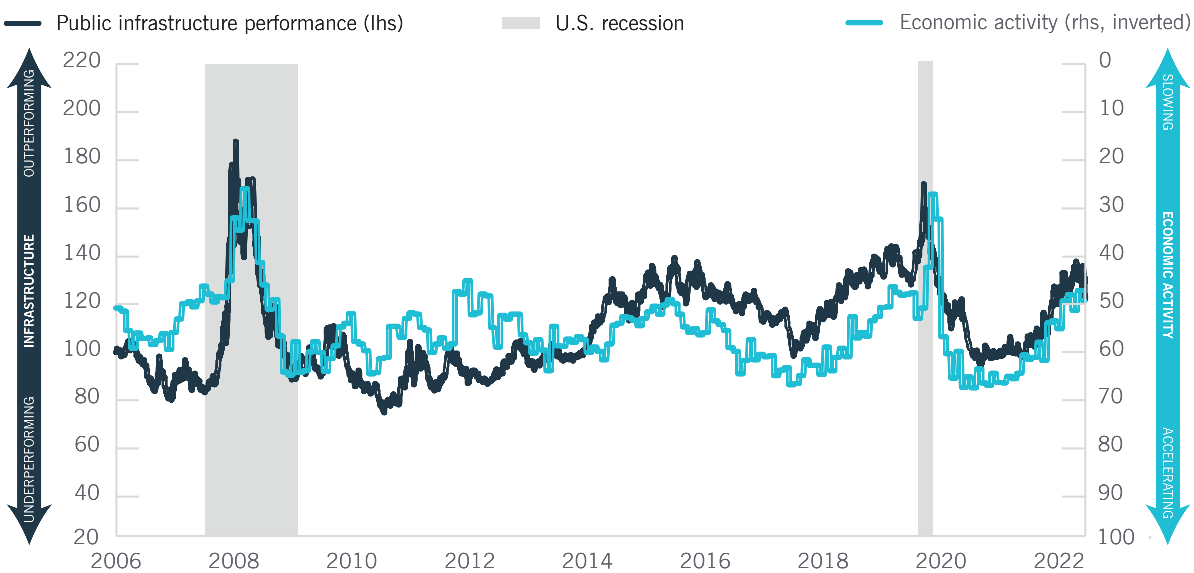
- **Reduce cyclicality:** We think inflation has peaked at last, but the descent might prove challenging. Price disinflation is likely to translate into lower corporate revenues, sparking another possible leg down for equities. Our preference for quality and dividend growth stocks reflects this scenario. In addition, we suggest reducing cyclicality by increasing exposure to infrastructure, which is often capable of growth through economic slowdowns thanks in part to inelastic demand for the necessary services it typically provides. As an asset class, infrastructure also appears primed to take advantage of a number of macroeconomic factors, such as green technologies and global energy scarcity.

- **Strengthen the core:** In 2022, we witnessed the unraveling of what had been a historically helpful (i.e., negative or low) stock/bond correlation. Looking ahead, with the bulk of rate hikes behind us and the Fed's "slower but longer" approach taking shape, we think it makes sense to modestly increase duration through bolstering core bond allocations, especially in investment grade credit. We still like high yield (especially the higher quality segments), but anticipate some spread widening. Likewise, we see select opportunities in loans, but continue to be wary of default risks. Municipal bonds remain a favorite of ours, and look particularly undervalued given still-strong fundamentals.

- **Assess the balance between private and public portfolio allocations:** Given how far public markets fell in 2022, investors allocated across public and private assets may be facing an imbalance between the two compared to the beginning of the year.

  While acknowledging concerns about potential write-downs in some private valuations, we maintain a strong preference for private asset classes with compelling fundamentals. Private credit, for example, should remain particularly resilient, as these investments are rooted in defensive sectors such as health care, software and insurance brokers, with long-term capital insulated from market ups and downs and primary deals supported by strong operating models. Additionally, private credit terms look attractive, with senior debt yields at record highs, debt ratios low and covenants favorable. We also see solid opportunities in farmland amid continued high inflation levels. At the same time, we see some near-term risks in areas of private real estate, while we are finding solid opportunities in public REITs.

Figure 1: Public infrastructure has more than weathered previous growth slowdowns



Data source: Bloomberg, L.P., November 2006 to November 2022. **Performance data shown represents past performance and does not predict or guarantee future results. Public infrastructure** depicts the daily performance of the FTSE Developed Core Infrastructure Index, indexed to 100. **Economic activity** depicts the ISM Manufacturing Index (a number over 50 indicates expansion; less than 50 indicates contraction).

Significant changes in our views

- **Growth risks have moved to the forefront.** As painful as 2022 was, our Global Investment Committee remains cautious about taking on additional risk in portfolios heading into 2023 until we see more evidence of the negative economic impact of higher rates, including rising unemployment and lower nominal retail sales.

  This sentiment is exhibited in our updated heat map, which shows our preference for rates-duration assets such as U.S. Treasuries and investment grade credit at the expense of senior loans and high yield. We also notably upgraded listed REITs, which are pricing in more of the bad economic news than their private counterparts.

Our highest-conviction views

- **Higher quality corporate debt (+)** offers compelling yields and spread levels as bright spots that should not be ignored. And their income provides a cushion against any negative price action resulting from spread widening. Investment grade credit offers a good option as recession risk concerns increase.
- **Infrastructure (+)** appears well insulated from higher debt costs and elevated inflation. We favor U.S.-based utilities, midstream pipelines and waste management companies. For utilities, U.S. oriented operations and a supportive regulatory environment provide some insulation from geopolitical risks and allow inflation costs to be passed through to consumers. Additionally, the Inflation Reduction Act makes capital spending on green energy initiatives far more attractive. Midstream pipelines stand to benefit from the growing challenges of global energy scarcity as the world becomes more reliant on U.S. energy sources. Waste management companies should provide above-market growth thanks to unwavering demand for their operations, which translates to pricing power. Furthermore, infrastructure performance has historically been decoupled from economic growth (Figure 1).
- **Non-U.S. equities and debt (-)** remain significant underweights. We believe risks remain concerning the strong U.S. dollar, uncertainty surrounding China, the ongoing Russia/Ukraine war and potential stagflation in the U.K. and Europe. In particular, we are most negative toward U.K. and European markets (where these risks are most concentrated) and slightly less negative toward emerging markets, which could improve if risks in China recede.

> **“We think it makes sense to modestly extend duration and focus on higher quality areas of the bond market.**

The economy and markets

Brian Nick
Chief Investment Strategist

Key points to know

Inflation should finally decline.

Global inflation remains very high heading into 2023, but we see signs it has peaked. As consumer spending growth normalizes and the goods/services balance is restored, corporate profit margins will likely compress. At the same time, global real estate and labor markets are showing signs of returning to balance, reducing upward pressure on rent and wages, both key drivers of inflation. Energy costs remain a wild card with geopolitical risk influencing oil and gas prices, but even a plateau at current levels would provide a meaningful drag on global headline inflation over the next few quarters. Countries where central banks have already layered in substantial policy tightening appear to be ahead of the game in bringing down inflation (Figure 2).

But economic growth will slow, too.

Investors will celebrate the easing of inflation and the corresponding lessening of pressure on central banks to tighten policy. But in the wake of declining inflation, we'll find a global economy still nursing a hangover from the post-pandemic reopening binge, hampered further by higher borrowing costs and diminished savings. This may lead businesses to slow their pace of hiring — or reverse course to reduce headcounts — which will, in turn, weaken consumer spending even if income growth once again starts to outpace inflation. Countries like China and Japan remain sensitive to export demand but have also seen their domestic economies struggle. Meanwhile, Europe's fate remains closely tied to global commodity prices, energy preparedness and, yes, the weather.

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Inflation risks may be fading. But recession risks are growing.

We expect varying resistance to recession across countries.

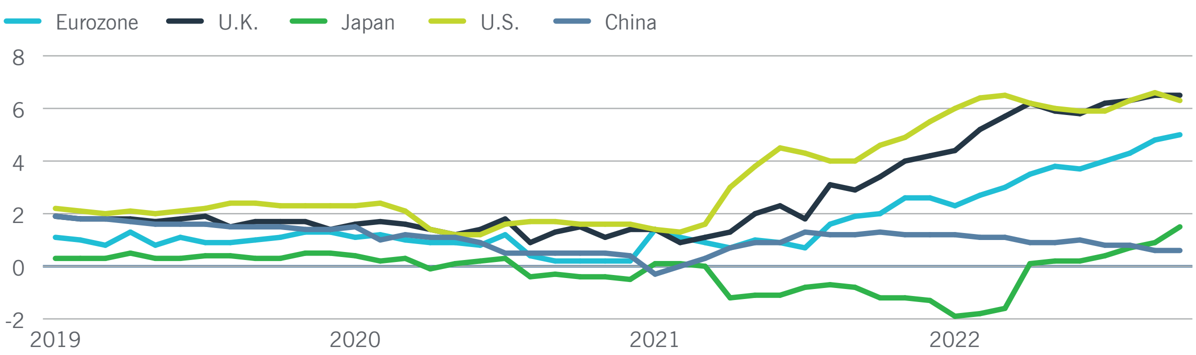
2022 pitted the irresistible force of higher rates against the immovable objects of consumer spending and hiring demand. For countries to stay out of recession in 2023 — or keep those recessions mild when they occur — it will take a combination of carefully calibrated monetary policy and increased use of consumer balance sheets (i.e., reduced savings and increased credit). Job security will become the key variable to watch for consumer strength. Consumers save less and spend more when they feel confident in their employment prospects. While unemployment rates remain low around the world, the "immovable objects" will likely start to budge sooner in Europe and emerging markets than they will in the U.S.

Policy risks aren't going anywhere.

Ask most investors, and they'll tell you that inflation was the single largest obstacle to generating positive returns in 2022. But that's not quite right: It was actually central banks' collective response to that inflation that sank diversified portfolios. Higher discount rates took down equity valuations — though not profits just yet — and led to substantial losses on most categories of fixed income. The risk that rates go even higher as central banks struggle to fully break inflation may keep markets on edge. And even if policymakers sound the all clear on further rate hikes, the environment that follows is likely to feature either higher rates for a prolonged period (our base case), or a dramatic rally in government bond markets driven by a severe macroeconomic downturn (our primary downside risk case). Neither of these scenarios promises a smooth melt up for diversified portfolio balances in 2023.

Figure 2: The beginning of the end of inflation, or the end of the beginning? It depends where you are.

Core Consumer Price Indexes, percentage change year-over-year



Data source: Bloomberg, L.P., January 2019 to October 2022.

GIC Asset class outlooks

EQUITIES

Saira Malik

Investment positioning

- The bad news as we enter 2023: We expect the all-too-familiar headwinds of 2022 (persistent inflation, rising yields, hawkish central banks and a rocky geopolitical landscape) to drive volatility and uncertainty through the start of next year. We should continue to see pockets of strength across global equity markets on specific catalysts such as perceived dovish messaging from central banks or even a moderation of rate hikes, but the risks surrounding earnings, employment and contractionary manufacturing data lead us to believe we're not yet out of the equity bear market.
- As a possible bright spot, we believe inflation is moderating, which should provide some tailwinds for stocks in 2023. In particular, we favor dividend-growers, an area where relatively higher income can help offset price return volatility.
- Geographically, we prefer U.S. stocks (especially large caps) relative to other markets, as they offer better opportunities for both defensive positioning and growth.
- Across market sectors, we like health care as a relatively stable area and see opportunities in REITs, which offer a combination of solid fundamentals and attractive valuations. We also think the materials sector should benefit from easing inflation and energy should hold up well. We're less favorable toward higher growth areas, including technology and communications services that are likely to struggle amid a "higher for longer" interest rate environment.

BEST IDEAS: *Our highest-conviction investment idea continues to be dividend-growers, which tend to be high quality companies with strong free cash flow levels. This area also offers solid income and tends to be less susceptible to volatility.*

FIXED INCOME

Anders Persson

Investment positioning

- We think we are approaching the end of the current rate-hiking cycle in the U.S. and think a terminal rate might kick in sometime in the second quarter of 2023 (other central banks are likely to continue tightening as they are further behind the curve). As such, we're growing more comfortable taking on some duration risk and think it makes sense to move closer to neutral (although not yet time to go long).
- At the same time, we're growing a bit more wary toward credit risk as recession indicators rise, which could cause some spread widening. We think corporate credit fundamentals remain solid and we're not expecting a significant rise in defaults since most companies have been focusing on improving their balance sheets.
- This leads us to focus on higher quality investments across sectors. We're particularly favorable toward investment grade corporates and see opportunities in the higher quality segments of the high yield market. In contrast, we remain cautious toward emerging markets debt given the likely continued strength of the U.S. dollar and slower global growth.
- In private credit markets, some deals are being delayed or shelved due to higher financing costs and some lenders have been conserving capital, which creates deal scarcity. But demand remains high for private credit among investors seeking long-term compelling yield potential.

BEST IDEAS: *We favor higher quality areas of the market as well as diversified and flexible core plus mandates that can identify select higher-income investments. We're also quite favorable toward preferred securities: The issuer base is in great fundamental shape and the sector is attractively valued.*

MUNICIPALS

John Miller

Investment positioning

- We believe the selloff in municipal bonds in 2022 has been driven almost entirely by macroeconomic factors (specifically rising rates and inflation) rather than fundamentals. As such, we think municipals should be overdue for a snapback.
- Despite the decline in prices, municipal bond markets remain backed by strong fundamentals: Municipalities are enjoying solid revenue growth, and we're seeing more credit upgrades than downgrades. Municipal fund flows have been negative, but we expect that will change once investors become more confident that Fed rate hikes are getting close to ending and inflation is moderating.

- We see the best current opportunities in higher quality and longer duration municipal bonds, which we expect will lead the way when markets stabilize. Additionally, we see opportunities in the BBB and BB credit quality range where spreads have widened in spite of particularly strong fundamentals.

BEST IDEAS: *In the investment grade space, we see the best opportunities in select longer duration, high quality bonds that we think are deeply undervalued. In the high yield area, we see a number of idiosyncratic opportunities in areas such as transportation, health care and education.*

REAL ESTATE

Carly Tripp

Investment positioning

- Headwinds for private real estate are rising, and we expect volatility will persist (and perhaps rise). Transaction activity has been slowing and liquidity is becoming more scarce. We think fundamentals remain sound and firmly believe in the long-term case for carefully sourced private real estate investments, but we also expect we're entering a phase where slowing deal flow and challenged liquidity will be more important near-term drivers than fundamentals.
- One approach to this more challenging environment is to focus on real estate debt over equity (partially due to lenders broadly expecting rates to eventually decline). Across debt markets, we see the best opportunities in the industrial sector and, to a lesser extent, housing.
- We're also seeing differentiated, compelling and idiosyncratic opportunities across geographies: In the U.S., we're focused on specialized medical offices that benefit from an increasing move toward outpatient procedures; we like European suburban housing (specifically rentals) in areas enjoying growing industrialization; and in Asia we prefer investments such as Tokyo senior living facilities and Australian student housing benefiting from demographic trends.

BEST IDEAS: *In addition to the above, we remain focused on "global cities" experiencing growing, educated and diverse populations with a particular focus on the health care, industrial and housing sectors.*

REAL ASSETS

Justin Ourso

Jay Rosenberg

Investment positioning

- Perhaps the highest-conviction collective view from the GIC is our preference for infrastructure investments, particularly public infrastructure. Regulated utility revenue tends to be relatively decoupled from the economy and can experience growth from rising capital costs and policies related to energy transition and the Inflation Reduction Act. We also like midstream energy and waste investments for their growth and inflation-hedging characteristics.
- Private infrastructure should benefit from many of the same trends, and we are continuing to see attractive deals and solid investment opportunities. Due to the slowing economy and pricing delays compared to public markets, however, we are cautiously approaching underwriting assumptions and valuations. We prefer the clean energy and energy transition sectors.
- Farmland is another promising area within private real assets, as it can do well amid elevated levels of inflation and the geopolitical pressures that are creating supply issues. We expect row crops across geographies to have a better-than-average year, and believe farmland will remain a solid inflation hedge.
- We have a positive view toward public real estate, particularly amid the severe market reaction to rising interest rates and their relatively defensive cash flows. We favor companies with solid balance sheets that have more optionality and are less sensitive to rate moves and that have built foreseeable rental rate growth. We generally like shopping center, industrial and residential over office exposure.

BEST IDEAS: *In public markets, our best ideas include North American regulated utilities and midstream energy with a focus on natural gas. In private markets, in addition to farmland, we remain focused on investments that align with climate transition, such as clean energy, renewable fuel sources and continued strong global demand for protein and healthy foods.*

About Nuveen's Global Investment Committee

Nuveen's Global Investment Committee (GIC) brings together the most senior investors from across our platform of core and specialist capabilities, including all public and private markets. Quarterly meetings of the GIC lead to published outlooks that offer:

- macro and asset class views that gain consensus among our investors
- insights from thematic "deep dive" discussions by the GIC and guest experts (markets, risk, geopolitics, demographics, etc.)
- guidance on how to turn our insights into action via regular commentary and communications.

For more information, please visit nuveen.com.

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