2024 ALTERNATIVE CREDIT INSIGHTS

Taking center stage

Alternative credit in the spotlight

Investors were reminded of the growing importance of alternative credit in portfolios during the interest rate run-up — and accompanying market volatility — that began in early 2022. Of note, Nuveen's 2023 institutional investor survey showed that nearly 50% of investors were revisiting traditional and/or opportunistic fixed income for yield and over 40% were planning to increase allocations to alternative credit. (Figure 1).

While equities and bonds staged a recovery in 2023, alternative credit continues to demonstrate its value as an important source of diversification and resilience in investor portfolios.

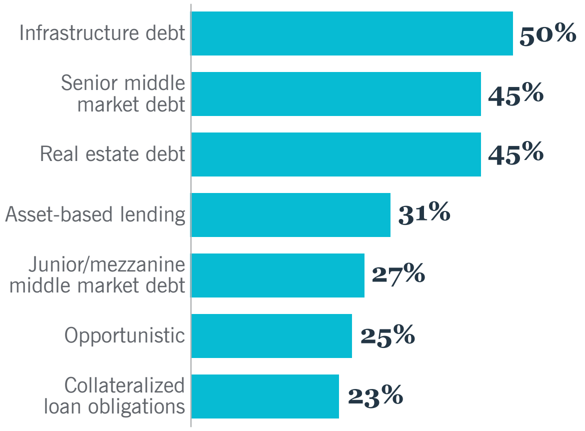
Alternative credit strategies in focus

- **Direct lending** has entered a "golden age" characterized by higher yields and a more lender-friendly market zeitgeist. We expect this theme to continue in 2024, with private credit markets remaining the preferred financing option for corporate borrowers both large and small.
- **CLOs** look well-placed to capitalize on an upcoming refinancing of 2022 deals. Spreads tightened in the latter half of 2023, and we expect further tightening throughout 2024.
- **Commercial real estate debt** will likely offer compelling opportunities, particularly for alternative lenders who will find it easier to lend at relatively modest LTVs while still targeting greater potential returns due to higher funding costs. Within the real estate opportunity set, we also expect **C-PACE (Commercial Property Assessed Clean Energy) financing** to continue to perform well, given the higher rates and consistent premium to relevant benchmarks as environmentally focused investments continue to gain momentum among both lenders and borrowers.
- **Energy infrastructure credit** benefits from the megatrend of decarbonization of the global economy coupled with the tailwind of regulatory support. Utilizing debt enables an investor to benefit from structural protection that an experienced lender can deliver even if the economy slows or inflation persists in this sector.

The following sector insights do not showcase all of Nuveen's capabilities in alternative credit, nor all our expectations for the asset class. To learn more about the alternative credit services available, reach out to your Nuveen representative.

Figure 1: Alternative credit remains a strong choice for yield

Institutional investors planning an allocation to alternative credit in 2023 (325 respondents)



Source: 2023 Nuveen EQuilibrium Survey. Nuveen and CoreData surveyed 800 global institutions spanning North America (NORAM); Europe, Middle East and Africa (EMEA); and Asia Pacific (APAC) in October and November 2022. Respondents were decision-makers at corporate pensions, public/ governmental pensions, insurance companies, endowments and foundations, superannuation funds, sovereign wealth funds and central banks. Asset owner survey respondents represented organizations with assets of more than $10B (58%) and less than $10B (42%), with a minimum asset level of $500 million. The survey has a margin of error of ± 3.5% at a 95% confidence level.

Key points to know

Past the peak of inflation

Headline year-over-year U.S. consumer price inflation topped out at 9.1% in mid-2022 and has since moderated by almost 6%, to 3.2% in October.

Comparable measures in Europe have dropped even faster, from 10.6% last year to 2.9% in the latest print. We always knew that headline prices would fall, but the question was whether stickier core prices would follow the same path.

We are more confident that core inflation is maintaining its downtrend. Shelter inflation (measuring consumer spending on the entire stock of housing services) has decelerated for six straight months, and we anticipate further progress. Wage inflation remains elevated at an annual pace above 5%, but leading indicators point to a slowdown next year toward 4% (Figure 2).

Overall, though inflation remains lofty relative to pre-Covid trends, it is set to continue its decline over the coming months and quarters.

Recession risks remain

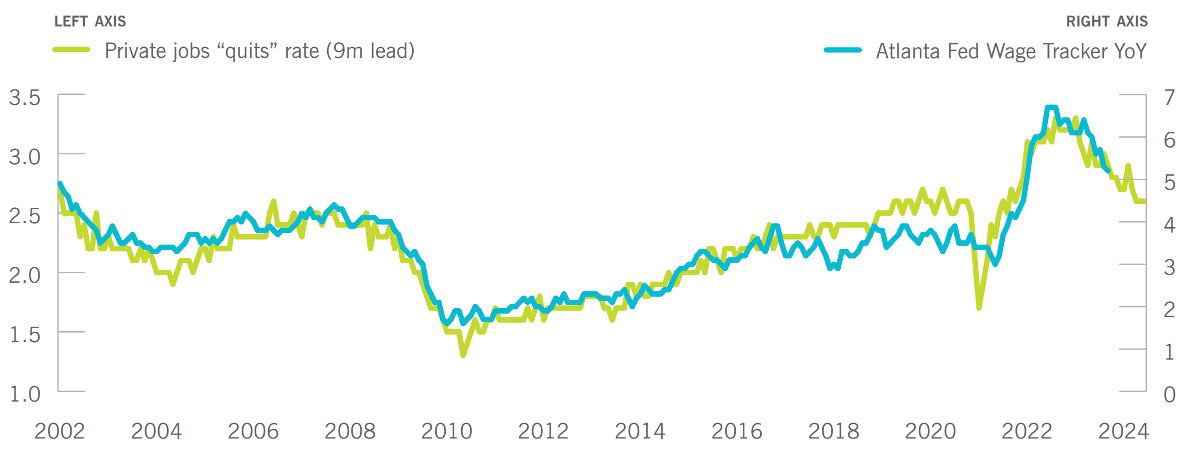
The upshot of the improved inflation outlook is that growth prospects have also deteriorated.

Unemployment in the U.S. has ticked up 0.5% from its recent low, and the pace of job creation has slowed from above 300,000 per month at the start of the year to less than 200,000.

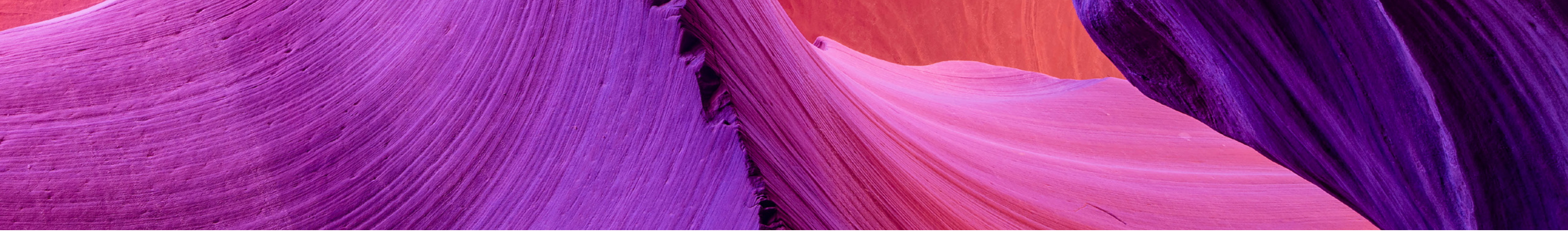
Consumption and investment remain strong, but robust demand today may be simply pulling forward activity at the expense of next year's growth.

Consensus estimates for 2023 GDP growth are up +2.0% compared to early 2023, but prospects for 2024 are down -1.4%. With the new year's economic performance looking increasingly tenuous, the risk is elevated for a dip into outright recession. New geopolitical risks could also weigh on activity, from Ukraine to the Middle East to east Asia. Against this backdrop, we think a mild recession in late 2024 is more likely than not.

Figure 2: U.S. wage inflation is set to decline further



Data source: Bloomberg, L.P. and Bureau of Labor Statistics JOLTS survey, Jan 2002 to Sep 2023. Private quits from the BLS survey are reflected on a nine-month lead (through Jun 2024) to reflect the typical expected lag between the quits rate and actual changes in wage inflation.



Central banks have finished tightening

Over the last year and a half, major global central banks focused entirely on fighting inflation. The Federal Reserve, European Central Bank and Bank of England have each raised policy rates between 450 and 525 basis points, from near-zero to multi-decade highs. With the inflation outlook now significantly improved, we anticipate an end to the overall hiking cycle. A few outliers may emerge, such as high odds of a rate hike from the Bank of Japan and Australia and/or Sweden following suit.

But for the Fed and most other central banks, attention should now shift. Instead of focusing on "how high" rates need to climb, the question will be "how long" they stay at current levels. With material runway before inflation returns comfortably to the Fed's 2% target, we think policy rates will remain at current levels for the next several quarters.

Eventually, as growth slows and the labor market continues to weaken later next year, we expect a pivot toward rate cuts likely around mid-year.

What does this mean for alternative credit?

Our macro outlook hinges on three key variables: 1) inflation has peaked, 2) economic growth will peak soon, and 3) central bank policy rates are peaking now. Historically, these dynamics have tended to coincide with a peak in rates broadly, as well as with a re-steepening of the yield curve.

Through an alternative credit lens, the environment is attractive. Higher-for-longer interest rates should serve investors on the credit side well, with a larger proportion of asset returns being diverted to lenders. In addition, market expectations for a modest decline in economic growth has tempered animal spirits somewhat, leading to less aggressive capital structures and more lender-friendly terms. Put simply, credit investors have a stronger hand at the negotiating table, with higher base rates providing a powerful tailwind for returns. Inflationary forces, often a wild card for both debt and equity investors, have begun to abate, providing calmer seas and better visibility for alternative investors focused on longer term investment outcomes.

Apart from the macro forces of inflation, interest rates and economic growth, investors should be cognizant of additional trends which will shape the alternative credit landscape in 2024 and beyond. In particular, the related trends of energy decarbonization, electrification and onshoring of energy-related supply chains, which will need tremendous amounts of capital for new infrastructure in the coming years. This will require alternative investors to broaden their investment scope to consider new opportunities in areas such as project-based financing, securitizations and more complicated capital structures. In addition, this trend will overlap with opportunities in the commercial real estate space, as the continued push toward greener infrastructure stokes demand for debt instruments such as C-PACE loans.

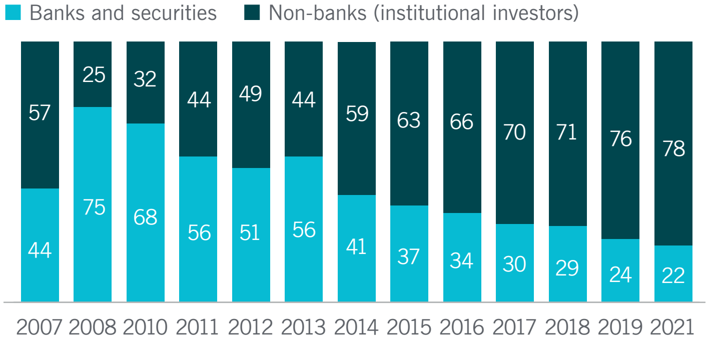
We believe the confluence of these macro factors should produce a dynamic market environment which will offer alternative credit investors many opportunities to access attractive returns while improving overall diversification levels. The challenge will be in identifying investments which offer the right balance of upside return and downside risk. Selectivity — coupled with a broad perspective on the full alternative credit opportunity set — will be key.

Sector outlook

Direct lending

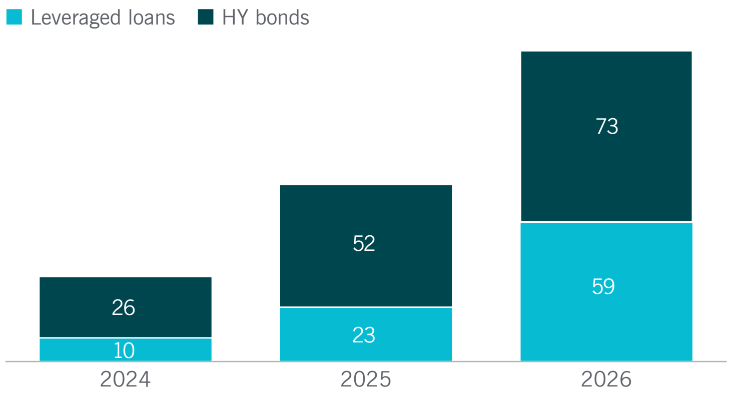
- The opportunity in senior lending remains compelling, and we expect the vintages of 2022, 2023 and likely 2024 should be attractive. Senior debt all-in yields, underpinned by the floating-rate component of loans, have been boosted by the rise in interest rates to around 12%. At the same time, we see structurally lower leverage, tighter covenants and more cash equity going into leveraged buyouts (LBOs), adding to the existing benefits of floating-rate lending offering a natural rates/inflation hedge, stable valuations and illiquidity premiums. From an issuer perspective, direct lending holds a strong position in the market and remains the preferred financing option for new LBOs over public credit by a wide margin (Figure 3).
- Direct lending in Europe offers investors the ability to capitalize on a private debt market benefiting from improved risk-adjusted returns similar to the U.S., driven by increased deal volumes, improved pricing, lower leverage and high quality borrowers.
- At times of severe volatility and dislocation, discounted debt purchases and liquidity/refinancing solutions may become more compelling. In contrast, when the market is fully priced, specialist lending may be more effective. In 2023, however, we found ourselves in a distinctive moment where all strands of the capital solutions opportunity set were simultaneously attractive. While some businesses continue to perform (those with pricing power, manageable leverage and hedged interest rate exposure), other companies are grappling with an array of challenges accumulating over the last few phases of the cycle.
- The retrenchment of traditional lenders has left a significant supply gap that private debt investors are able to fill with flexible capital. In Europe, a strong driver of the demand for credit is the more than €100 billion wall of debt maturities coming due in the next two years. The market has digested approximately €30 billion of institutional loan extensions in 2023 through August, including with the support of flexible capital providers. The market's maturity profile continues to be upward sloping. Significant supply/demand imbalance risk continues, presenting an opportunity for special situations investors.

Figure 3: Non-bank lenders continue to take market share from global banks (%)



Data source: PitchBook LCD, Given the lack of primary issuance, LCD did not track enough observations to compile a meaningful sample for 2009, 2020, 2022 and YTD 2023. Note this refers to loans issued by banks and held by for term, i.e., not the syndicated loan market

Figure 4: Growing volumes of loan and bond maturities in Europe in the next 3 years (€bn)

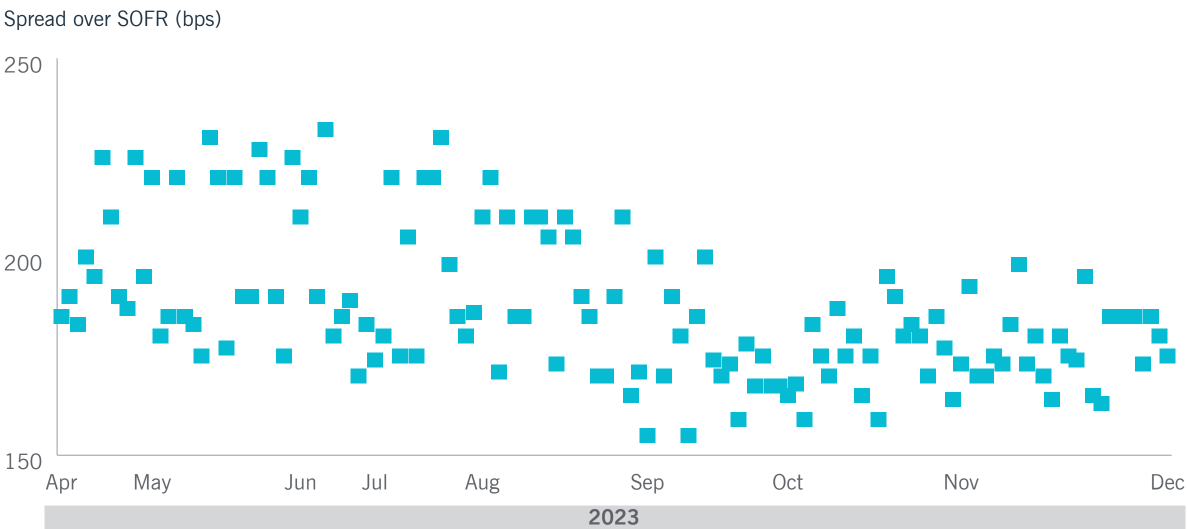


Data source: PitchBook LCD as of 30 Sep 2023.

Collateralized loan obligations (CLOs)

- Issuance of new U.S. CLOs reached nearly $100 billion in 2023 across more than 200 deals, compared to the $116 billion across 250 deals in 2022. At this point, the U.S. broadly syndicated CLO market has reached more than $888 billion. During late 2023, the pace of new CLO warehouse creation continued to slow to below the all-time lows set in Q2 2020, but should pick up to align with expected new issuance activity.
- In late 2023, several 2H 2022 vintage CLOs came into the market to extend their reinvestment periods once they exited their non-call periods. We expect this to continue through early 2024, as the 2H 2022 vintage transactions had the widest cost of liabilities in 2022 after Russia's invasion of Ukraine. We expect this refinancing/reset activity to continue through 2024, as deals issued in 2022 with two-year non-call periods become in-the-money for a transaction.
- CLO liability spreads continued to tighten during the second half of 2023 but remain historically wide. 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.

Figure 5: We expect additional tightening of CLO debt spreads in 2024

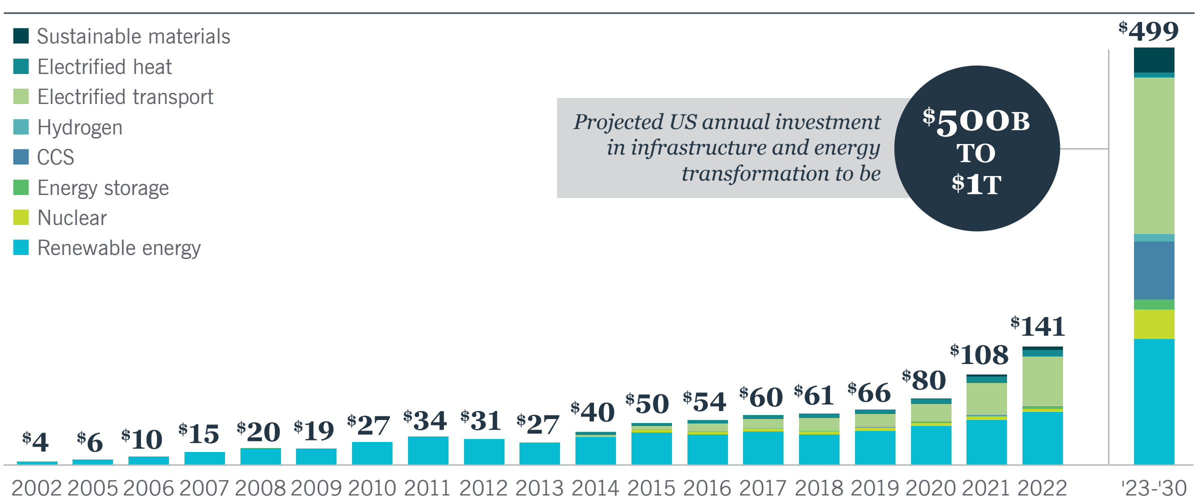


Data source: PitchBook | LCD. Data through 11 Dec 2023.

Energy and infrastructure credit

- We expect energy infrastructure investment will continue to be driven by several megatrends stoking demand for capital. The biggest trend is the push to decarbonize. The capital required to decarbonize the global economy will be tremendous, with electrification playing a significant role. The U.S. Department of Energy estimates that in the U.S. existing grid capacity will need to increase by 57% by 2035 to support the increased demand. This will in turn generate investment opportunities in areas such as onshoring the U.S. supply chain for clean energy sources and increasing production capacity of minerals critical to these efforts.
- The most significant driver of this megatrend is the U.S. Inflation Reduction Act, a powerful tailwind for energy investment opportunities focused on electrification, onshoring of the supply chain and manufacturing of storage. Additionally, Canada and the European Union have created companion incentive programs which are catalyzing a robust global investment opportunity set. This has all occurred as bank lending standards have continued to tighten, while periodic bouts of volatility in capital markets creates opportunities for non-bank lenders.
- Decarbonization opportunities are complex and capital intensive, with large-scale projects requiring highly experienced oversight to successfully manage them. Inflation is also an important factor, manifesting in the form of increased labor costs due to shortages of specialized labor and higher supply chain costs. These projects face higher costs of capital because they may fall outside the bounds of conventional project financing due to possible merchant exposure or development risk. However, these opportunities often possess hard asset collateral underpinned by contracted offtake agreements and robust cash flows. An experienced lender can capitalize on these attributes to structure deals which mitigate the attendant risks.
- Decarbonization in Europe is a critical topic, requiring significant investments from local governments and the private sector. Supported by EU initiatives such as REpowerEU, the EU aims to be less dependent on fossil fuels by accelerating the energy transition toward more sustainable and clean sources of energy. To achieve its net zero targets, non-bank lenders like Nuveen are needed to directly provide financing to energy transition projects or support bank financing through structured finance solutions.
- In 2024, we believe experienced credit investors who can successfully navigate project complexity and structure investments with sufficient downside protections will be well-positioned to ultimately deliver attractive risk-adjusted returns in this opportunity set.

Figure 6: Investment in infrastructure projected to increase significantly



Data sources: BloombergNEF, McKinsey, Nuveen analysis.

Real estate debt

- Higher interest rates have increased the risk that upcoming refinancings for maturing commercial real estate loans may lead to loan impairments, collateral enforcement and distressed sales. Debt costs at refinancing will likely be significantly higher than at origination, and available loan-to-value (LTV) should be lower from almost all lenders (but especially the banks), leaving sponsors with a capital shortfall. On the collateral side, depending on the timing of the original loan, valuations and income may be lower in vulnerable sectors such as offices, hotels and retail, pressuring LTV and interest coverage ratio covenants.
- Mitigating factors may, however, limit the downside. First, the industrial and apartment sectors in the most developed markets have likely seen valuation growth over the course of the loan, so LTV ratios at maturity should be lower than at origination. Secondly, the lower LTVs in the recent cycle mean the amount of debt due for expiry is a lower share of the market than we saw during the global financial crisis (GFC). Thirdly, lower leverage means that the equity cushions built into the lending process were larger than in the GFC, so the risk of distress is lower. For example, NCREIF data suggests that an average U.S. office or retail five- to seven-year loan maturing in late 2023 would have seen its LTV increase since origination due to market valuation movements, but only by a quarter, taking a 70% LTV loan to 87.5% LTV. Such movements will cause difficulties at renewal but should be easier to solve than an LTV of more than 100%. In the U.K., MSCI data suggests expiring office loans will be in a similar position, although U.K. retail loans look less stable.
- For these reasons, we can expect a rise in distressed sales due to refinancing problems, but not a tsunami. Further, this could provide opportunities for alternative lenders to lend at relatively modest LTVs but at much greater potential returns due to higher funding costs and margin expansion as traditional lenders aim for lower sections of the capital stack.

Figure 7: Probability of full redemption of loan capital at maturity (%)

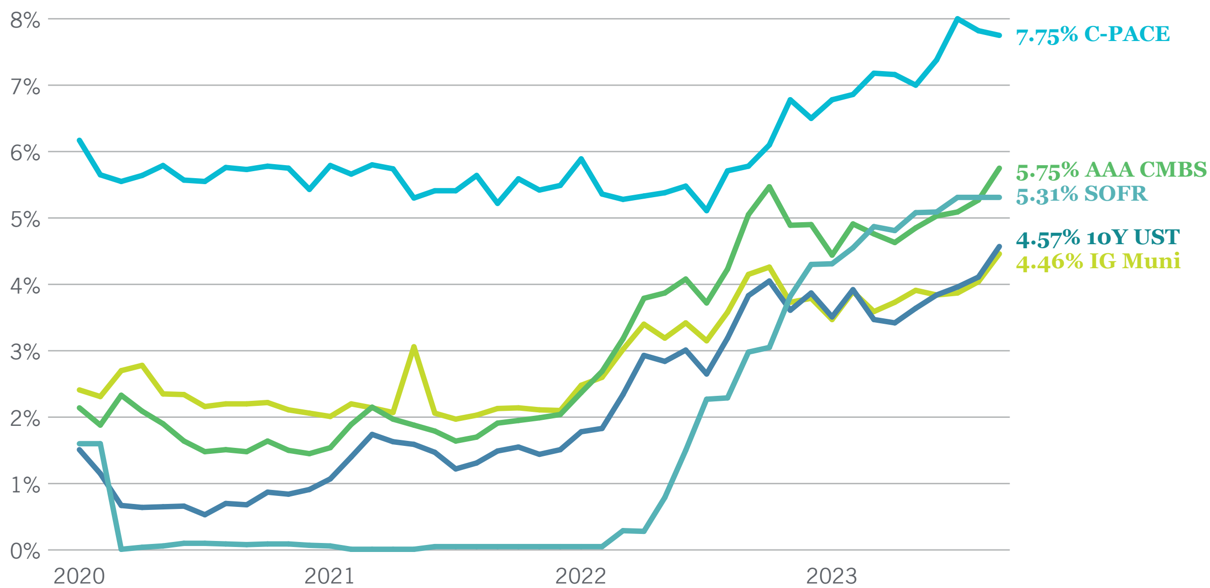
Data source: Source: BloombergNEF; McKinsey, Nuveen analysis.

“We can expect a rise in distressed sales, but not a tsunami.”

- We believe that 2024 should also present opportunities in C-PACE lending, a U.S. public-private financing program for energy efficiency, climate resiliency, water conservation and renewable energy projects. C-PACE loans are used to fund property improvements such as solar panels, high-efficiency lighting and low energy hot water heating systems. This small but rapidly growing market enables investors to lend at low LTVs at a super-senior level, ahead of other mortgages and encumbrances. The resultant loans offer long-dated, attractive and stable risk-adjusted returns with investment-grade bond ratings, backed by special property-level assessments that don't accelerate or extinguish in the event of a foreclosure or bankruptcy.
- The C-PACE market has grown from $211M in 2015 to over $5.2B in 2023, and we expect continued robust growth in 2024 (Source: PACENation market data as of 31 Mar 2023).

Figure 8: C-PACE pricing vs. fixed income benchmarks

As of 30 Sep 2023

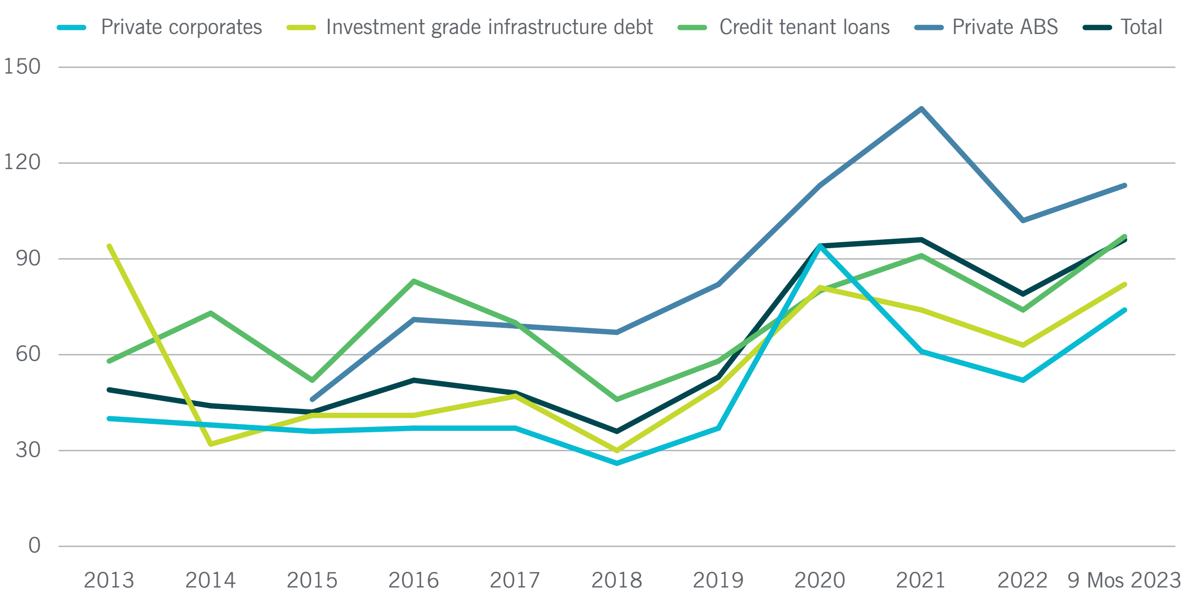


Data source: **Past performance does not predict or guarantee future results.** Source: Nuveen, updated through 30 Sep 2023.Note: (1) Source: Bloomberg US 10 Year Treasury (2) Source: Bloomberg AAA CMBS (3) Source: S&P Municipal Bond Investment Grade Index (4) Weighted average rate for C-PACE originated by NGC

Investment-grade private credit

- Investment-grade private credit instruments, such as private placement corporate debt, private ABS and related securitizations (such as credit tenant loans) also offer promise in 2024. While higher yields have boosted demand for publicly-traded investment grade credit, we expect privately placed debt to remain relatively attractive given robust spread premiums and the presence of greater downside protections as we enter a potentially more challenging credit environment. To meet this continued investor demand, we expect the robust pipeline of investment opportunities to persist across each sub-sector of the private placements market. Many issuers who may have been on the sideline during 2023 due to sustained market volatility will likely need to access capital to either refinance existing debt or to source capital for strategic business objectives.
- Within private placement corporate debt, all signs point toward a busy start to 2024. We expect a healthy pipeline in the first half of 2024, particularly across the U.K. and Europe. In addition to spread premiums holding at elevated levels, structural protections remain in transactions through covenants, which is a critical component of the corporate private placements value proposition.
- Within privately placed credit tenant loans, pipeline volume continued to pick up in Q4 of 2023 following a slower start and is expected to remain robust heading into the first half of 2024. Activity is strong across a broad spectrum of industries despite the continued challenging interest rate environment for borrowers.
- The investment grade infrastructure debt sector experienced robust deal flow during 2023, and we expect that momentum to continue into 2024. In particular, there have been attractive proprietary deals in the public-private partnership sector as well as transportation deals across Europe. We also expect continued robust activity in more bespoke opportunities where there are above-average private premiums.
- In private ABS, the pipeline of opportunities remains strong, with attractive spread levels as we enter 2024. In particular, we are finding opportunities in higher quality A-rated deals with spreads in the range of +300-350 bps, as well as BBB-rated deals with spreads in the range of +400-450 bps. Specific sectors where we currently see attractive relative value opportunities include data center, music royalties, solar, PDP (proved, developed and producing) loans, receivables, venture debt and low-income housing tax credits.

Figure 9: Historical spread premiums over publics by private placement sector (bps)



Data source: Nuveen as of 30 Sep 2023.

Finding opportunities in alternative credit

The growing popularity of alternative credit was initially borne, in part, from necessity, as investors searched for yield in a zero interest rate world. However, alternative credit's many benefits — including diversification, resilience to market swings and cashflow-driven return profiles — have proven to be durable even as interest rates have normalized. As the asset class has been adopted, the challenge lies in navigating between the many different sub-sectors within alternative credit, as investors seek to uncover the best relative value opportunities and build further diversification. Finding the right partner and understanding the full range of options will be key.

For more information, please visit nuveen.com.

Endnotes

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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.

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Important information on risk

Investors should be aware that alternative investments including private equity and private debt are speculative, subject to substantial risks including the risks associated with limited liquidity, the potential use of leverage, potential short sales and concentrated investments and may involve complex tax structures and investment strategies. Alternative investments may be illiquid, there may be no liquid secondary market or ready purchasers for such securities, they may not be required to provide periodic pricing or valuation information to investors, there may be delays in distributing tax information to investors, they are not subject to the same regulatory requirements as other types of pooled investment vehicles, and they may be subject to high fees and expenses, which will reduce profits.

Real estate investments are subject to various risks associated with ownership of real estate-related assets, including fluctuations in property values, higher expenses or lower income than expected, potential environmental problems and liability, and risks related to leasing of properties.

Responsible investing incorporates Environmental Social Governance (ESG) factors that may affect exposure to issuers, sectors, industries, limiting the type and number of investment opportunities available, which could result in excluding investments that perform well.

Investments in middle market loans are subject to certain risks such as: credit, limited liquidity, interest rate, currency, prepayment and extension, inflation, and risk of capital loss.

Private equity and private debt investments, like alternative investments are not suitable for all investors given they are speculative, subject to substantial risks including the risks associated with limited liquidity, the potential use of leverage, potential short sales, concentrated investments and may involve complex tax structures and investment strategies.

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