

The Case for Senior Loans



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4Q 2023 market update

Now that 2023 has come to a close, there has been a significant focus on the uncertainty of the US macroeconomic backdrop and its potential implications for the senior secured bank loan market. Paramount among these concerns are three key questions:

- 1) How are underlying issuers able to handle inflation pressures and will they be able to pass along increased costs to their consumers?
- 2) Where are we in the interest rate cycle and how will this affect issuers?
- 3) What effect will a potential recession have on issuers?

This piece provides our view on the current market environment and attempts to answer these critical questions.

Why loans now?

In our view, there are three compelling reasons to consider investing in senior secured loans today:

1) Potential high level of current income

Current income is comprised of two key components—base interest rates (which are expected to stay higher for longer) and credit spreads (which continue to remain wide). Coupon income for bank loans today is ~9.5%, which is its highest since 2009¹. Market expectations are for rates to remain high, well above pre-2022 levels. Loans have proven to provide consistent, stable income through varying market cycles, including recessionary periods and periods of falling rates.

2) Floating rate feature

Loans have virtually no duration risk (average ~45 days). The forward SOFR curve currently implies an average 3-month SOFR rate of approximately 4.5% over the course of 2024. This reflects the broadly adopted market view that the US Federal Reserve (Fed) will pivot to easing interest rates in 1H 2024, but will lower interest rates cautiously.

3) Compelling relative value

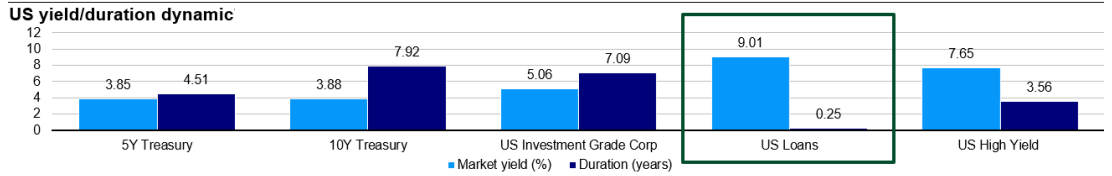
Loans have offered one of the best yields in fixed income, while providing downside risk mitigation by being senior in the capital structure and being secured by the assets of the company. Loans have offered these high yields with no duration risk. In a recessionary environment, loans offer downside risk mitigation by being senior which means they are the highest priority to be repaid in the event of default. Senior secured assets may offer added risk mitigation throughout recessionary periods.

Yields

Current loan yields and spreads look very attractive both on a historical and a relative basis. A loan's yield is based on both coupon payments, which is the interest return, as well as on principal return. The average coupon for loans has been 9.36%, outpacing the average high yield coupon of 6.06%¹. After averaging around 245 bps less than high yield bonds over the past fifteen years, this is the first time in history the average loan coupon has surpassed that of high yield bonds. It was only around two years ago when loans were yielding ~4.80%; loans have been yielding over 400 basis points more than that¹.

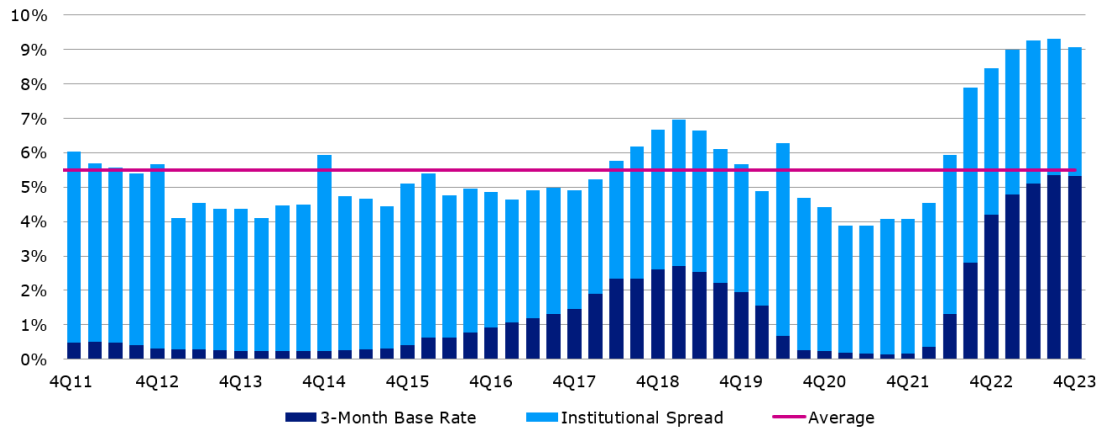
US senior secured loans have offered one of the best yields in fixed income

Past performance does not predict future returns.



Source: Bloomberg, JP Morgan, Credit Suisse, and Bloomberg L.P. as of December 31, 2023. The Bloomberg U.S. IG index represents IG corporates, the JPM US HY index represents High Yield and CS LLI represents the Leveraged Loans. Loan Yields represented yield to 3 year.

Total US loan coupons at highest levels in decades



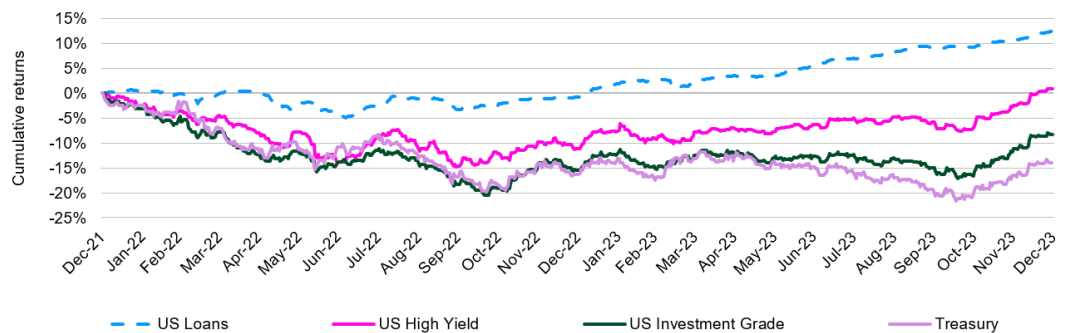
Source: Pitchbook LCD as of December 31, 2023. Base rate reflects the average during the quarter. Uses three-month LIBOR (prior to 2023) or SOFR (2023 or later) plus the weighted average institutional spread.

Throughout 2023, rising rates put the floating-rate loan asset class on pace for one of the strongest years since the Global Financial Crisis². The US leveraged loan market returned 13.04% in 2023¹. Loans still offer amongst the highest yields and are expected to remain high, as the market anticipates a higher for longer interest rate environment⁴.

Asset class resiliency

Steady US loan returns stood in stark contrast to other risk assets

Past performance does not predict future returns.

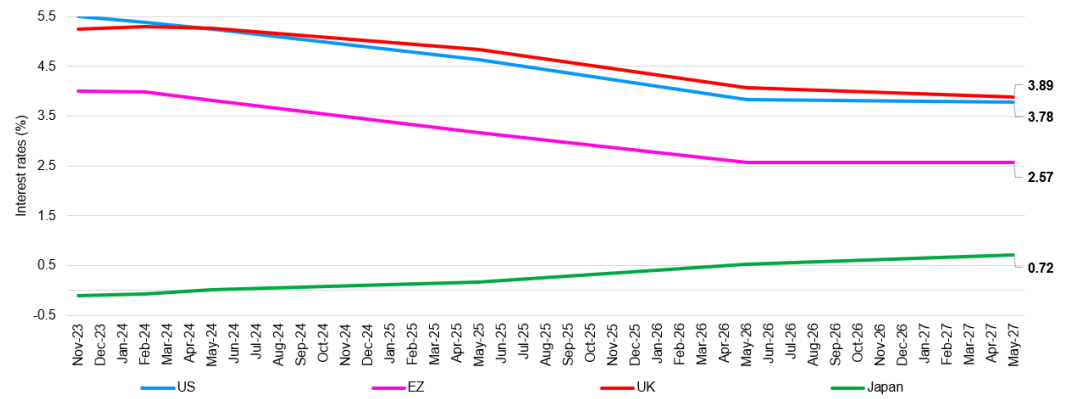


Sources: PitchBook Data, Inc. ; Bank of America Merrill Lynch; Bloomberg as of December 31, 2023. The Morningstar LSTA US Leveraged Loan Index represents US Loans, the ICE BofA US High Yield Index represents US High Yield, the ICE BofA US Corporate Index represents US Investment Grade, the ICE BofA Current 10-Year US Treasury Index-TR represents Treasury. An investment cannot be made directly in an index.

As the Federal Reserve pauses interest rate increases (or decreases rates), it can have both direct and indirect positive effects on the leveraged loan market such as:

- **Lower borrowing costs:** pausing rate hikes lowers borrowing costs for companies and potentially stimulates demand for new issuance.
- **Improved debt serviceability:** stable or lower interest rates reduce interest expense burden for companies, which can positively impact loan performance.
- **Increased investor demand:** when the Federal Reserve signals a pause in rate hikes, it may boost investor confidence and appetite for credit risk assets.

Forward interest rates – US and European implied market expectations



Source: Bloomberg as of November 3, 2023. Past performance is not a guarantee of future results. An investment cannot be made directly in an index. Forward-looking statements are not a guarantee of future results. They involve risks, uncertainties and assumptions. There can be no assurance that actual results will not differ materially from expectations.

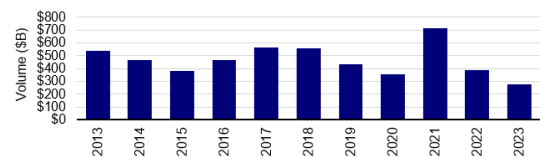
Market technicals

Last year, we saw retail demand for loans soften amidst broader risk-off investor sentiment. However, that trend has abated as some investors are becoming more comfortable with the “soft-landing” scenario for the US economy. There has also been a flow of new CLO creations through 2023. This indicates that there is still institutional investor appetite for loans. This steady CLO formation and minimal new issue helped support the loan market technical despite retail outflows and macro concerns. As of December 2023, 322 CLOs have priced \$138.9bn of issuance, and CLOs represent ~70% of the investor base in the loan market². Moreover, as demand for loans wanes, new loan issue supply will typically respond in kind to help re-establish equilibrium in the market. For example, year end 2022 gross and net issuance was \$252.5bn and \$163.1bn, -70% and -60% year-over-year, respectively³. This supply/demand imbalance forces CLOs to provide a bid in the secondary market. Having said that, the loan market has still been trading at a significant discount to par which long term investors can view as an attractive buying opportunity.

US CLO issuance



US loan new issuance

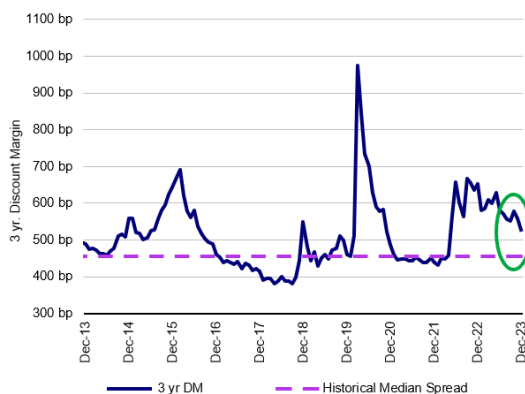


Source: Pitchbook LCD as of December 31, 2023.

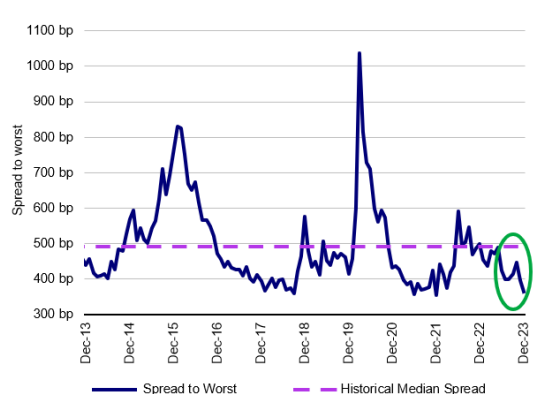
Relative valuations are also favor bank loans compared to most fixed income asset classes. Loan spreads are currently wide of their long-term average, while high yield bond spreads are currently tight to their long term average.

Loans have offered more attractive valuations than high-yield bonds

Loan spreads are currently still 73 bps above historical levels



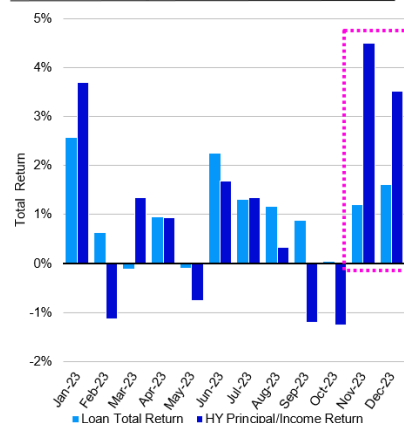
While HY bond spreads are 129 bps below historical levels



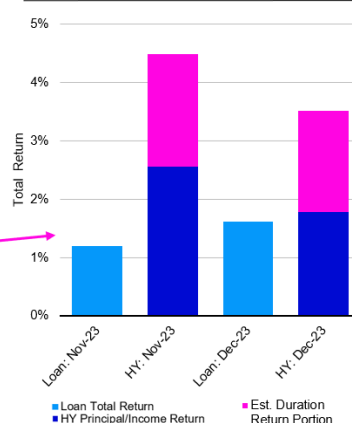
Source: Credit Suisse Leveraged Loan Index & Credit Suisse High Yield Index as of December 31, 2023. Past performance is not a guarantee of future results. Long term averages based on date from 01/31/1992 – 12/31/2023.

Monthly total return breakout

Loan/HY monthly total return



Impact of rate expectation on performance

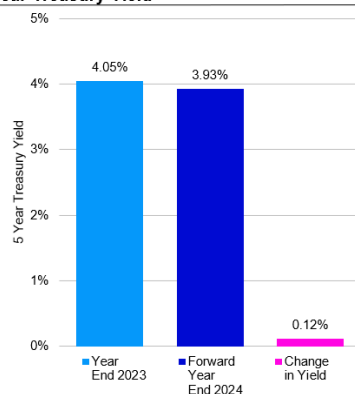


- Roughly half of HY's most recent run up can be attributed to duration related returns
- Duration related returns are based on forecasts rather than fundamentals, forecasts that can, and often do, change
- Current returns have been pricing in ~150bps of rate cuts in 2024. A shift in this forecast can result in a dramatic shift in HY performance
- For long duration, the rally may have come and gone

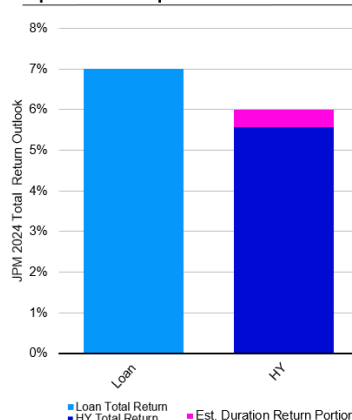
Source: Credit Suisse Leveraged Loan Index & Credit Suisse High Yield Index data through December 31, 2023. An investment cannot be made in an index. Past performance is not a guarantee of future results. Estimated duration return based on modified duration as of prior month end and basis point change in yields of 5-year treasuries.

Forward looking total return breakout

5-Year Treasury Yield¹



Impact of rate expectation on JPM outlook^{2,3}



- Year end market levels were pricing in only 12bps of tightening in 5-year yields in 2024
- JP Morgan Research outlook has a 7% return for Loans and 6% return for HY³
- With less than ~0.5% of the 2024 High yield return outlook estimated to be comprised of duration-based return, **the long duration play may have come and gone**

Source: ¹Bloomberg, year-end 2023 and forward 5-year treasury yield as of December 31, 2024. ²Credit Suisse Leveraged Loan Index & Credit Suisse High Yield Index data through December 31, 2023. ³JP Morgan Research as of January 5, 2024. An investment cannot be made in an index. Past performance is not a guarantee of future results. Estimated duration return based on modified duration of Credit Suisse HY Index as of prior month end and basis point change in yields of 5-year treasuries. Forward-looking statements are not a guarantee of future results. They involve risks, uncertainties and assumptions. There can be no assurance that actual results will not differ materially from expectations.

Market fundamentals

While technicals are finding an equilibrium, market fundamentals for underlying issuers remain relatively strong.

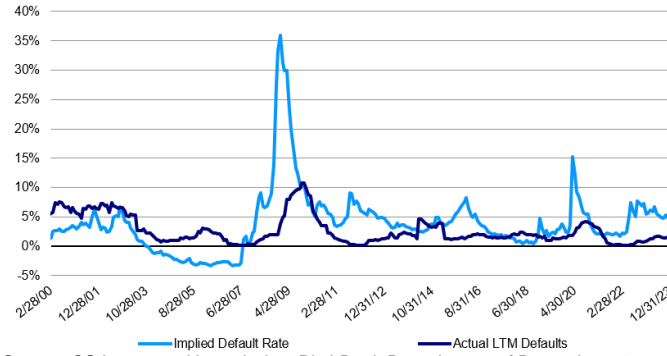
First, defaults remain low relative to historical levels. The trailing twelve month default rate at the end of September was 1.27%, while the historical trailing default is more than double that around 2.70%.

Given the macro concerns around a potential recession, we have seen default forecasts revised higher for the year. Default forecasts hover around the 3% – 4% level. However, we acknowledge if we enter a deep recession (which is not our base case), these estimates may be revised higher. Invesco's for 2023 was more around the 4.0% – 4.5% range, which did not materialize. We forecast a 3.75% - 4.25% default rate in 2024 driven by a combination of maturity and liquidity challenges, and these elements are largely already priced in by the market.

The risk of defaults, while small, remains the largest risk to loan investors, but the senior secured nature of loans has historically provided a high recovery rate in the event of default. As shown in the chart below, we believe investors are being well compensated on a risk-adjusted basis. If we were to conservatively factor in historical defaults of 3.0% with recoveries lower than historical averages of 60%, the market is implying a default rate around 4.13%, as illustrated below. An implied default rate of 4.13% with an average recovery of 60% would equate to a 1.65% credit loss. This loss would be significantly offset by the current 9.36% coupon return and yield to 3yr of 9.01%¹.

Historically, implied default rates have overshoot actual defaults

Historical actual vs implied defaults

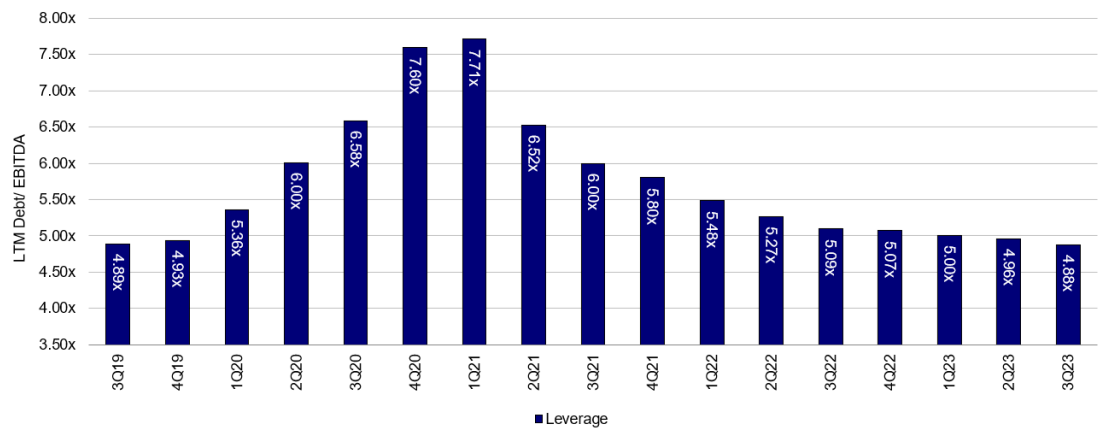


| US Senior secured loan market implied default rate | | 2024 US default forecasts ⁵ | |
|---|---------|--|-----------|
| Historical Spread ^{1,2} | B+470 | Fitch | |
| Less Credit Loss (2.7% Default Rate ³ x 40% LGD ⁴) | 108 bps | As of Dec-2023 | 3.5%-4.0% |
| Historical Risk Premium | B+362 | S&P Global Ratings | |
| Current Spread ² | B+528 | As of Dec-2023 | 3.0% |
| Implied Default Rate (40% LGD ⁴) | 4.13% | JPM | |
| Peak Default Rate ³ | 10.81% | As of Dec-2023 | 3.25% |

Source: CS Leveraged Loan Index, PitchBook Data, Inc. as of December 31, 2023. Implied default rate calculated by taking implied default loss (current spread – historical risk premium) and dividing by loss given default of 40%. “B” represents Base Rate. ¹Historical spread, price and yield reflect pre-credit crisis average from Jan. 31, 2000 - December 31, 2023, excluding 2008-2009 and March-Sept 2020, CS Leveraged Loan Index. ²Spread represented by Discount Margin (3-year life). ³Peak Default Rates, Average Annual default rates (Dec 1999- Dec 2023) and Actual LTM Defaults sourced from Morningstar LSTA US Leveraged Loan Index monthly default rates, the peak default month during 2009 was November. ⁴Loss Given Default (LGD). ⁵Fitch, S&P Global Ratings and JPM respectively.

The chart below provides the average leverage of companies in the leveraged loan market serving as an indicator of the financial health of bank loan issuers. Borrowers have reduced their leverage for the 10th quarter in a row, and average leverage in the market has returned to pre-pandemic levels. Borrowers have repaired their balance sheets and pushed out their debt maturities. Currently only ~1% of outstanding loans mature in 2024, leaving little refinancing risk in the market.

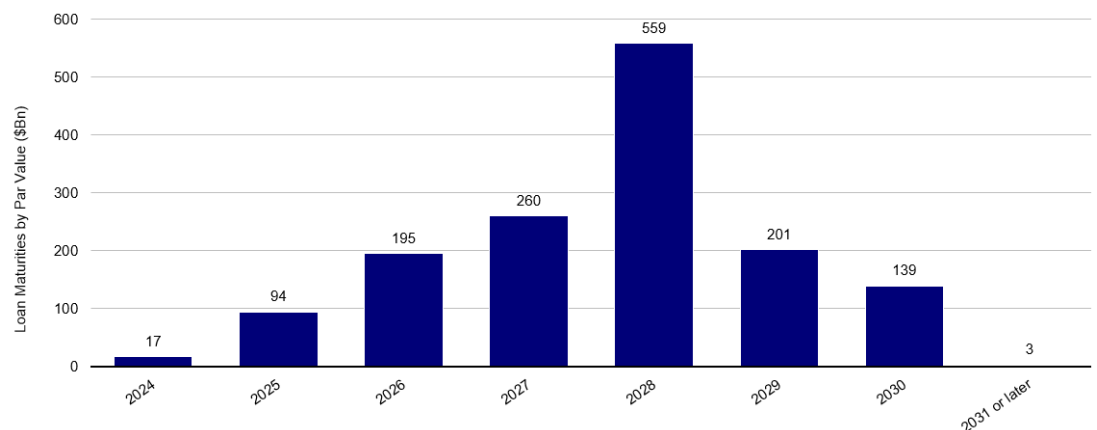
Borrower leverage across the loan market



Source: JP Morgan as of September 30, 2023. Data always with a quarter lag.

Loan Fundamentals have remained supportive

Years of strong refinancing activity have kept maturity wall at bay



Source: Credit Suisse as of December 31, 2023.

Another important investor concern is how current rates will impact issuers' ability to service their debt. As highlighted in the table below, the average borrower has entered this cycle with a very strong ability to

¹Credit Suisse as of Decemeber 31, 2023.

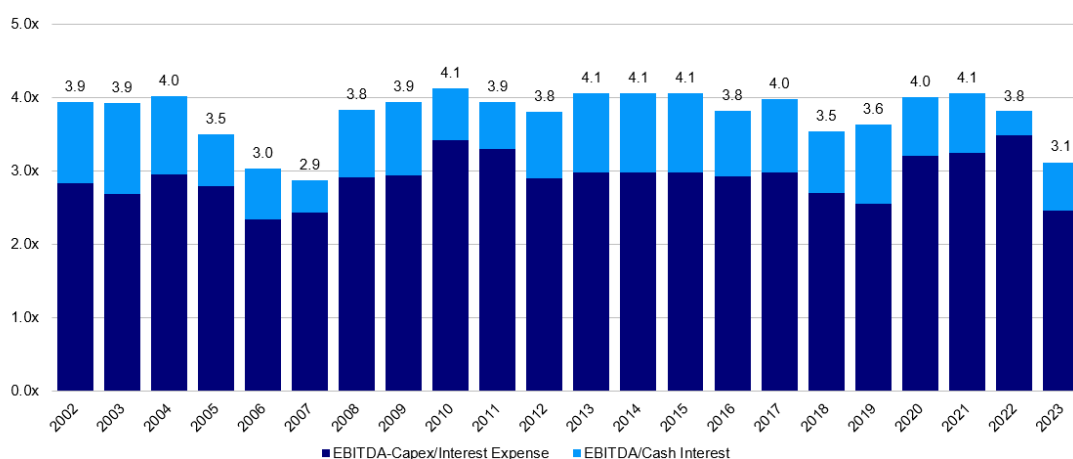
²Pitchbook LCD, Intex, Bloomberg, Credit Suisse as of December 31, 2023.

³Pitchbook LCD, Intex, Bloomberg, Credit Suisse as of December 31, 2022.

⁴Pitchbook LCD; Morningstar LSTA US Leveraged Loan Index. Data through December 31, 2023.

service their debt. Interest coverage ratios have still been robust, leaving companies with sufficient ability to absorb higher rates.

Interest coverage across the loan market



Source: Pitchbook LCD as of December 31, 2023.

Conclusion

As shown above, we believe there is likely still ample opportunity in the loan asset class to generate higher than historical average returns. We expect 8% loan returns in 2024, again powered by strong carry partly offset by expected price erosion at the lower end of the credit quality spectrum. An aggressive interest rate easing cycle is certainly possible based on historical experience, but that is not our base case. As a closing point, following the four periods since the Global Financial Crisis, when loan yields exceeded 8% (they are currently around 9%), the loan market has delivered very strong outperformance over the ensuing 6-12 months (with a 10.69% average 12 month forward return). We believe this may present a compelling entry point and opportunity for long term investors.

Historical Leveraged Loan Forward Performance

Leveraged Loan Forward Performance as Yields Breach 8%

| Date | Leveraged Loan Forward Returns | | | | Leveraged Loan Spread-to-worst Change (bps) | | | |
|----------------|--------------------------------|--------------|--------------|---------------|---|---------------|----------------|----------------|
| | 3 months | 6 months | 9 months | 12 months | 3 months | 6 months | 9 months | 12 months |
| 20-May-10 | 1.64% | 5.34% | 9.57% | 10.37% | 1 bp | -96 bp | -200 bp | -176 bp |
| 19-Aug-11 | 3.42% | 6.59% | 8.38% | 10.89% | -76 bp | -140 bp | -135 bp | -144 bp |
| 20-Dec-18 | 3.74% | 5.21% | 6.35% | 8.08% | -80 bp | -74 bp | -55 bp | -73 bp |
| 11-Mar-20 | 3.87% | 7.85% | 10.78% | 13.43% | -106 bp | -215 bp | -269 bp | -330 bp |
| 10-May-22 | 0.55% | 0.42% | NA | NA | 40 bp | 125 bp | NA | NA |
| Average | 2.64% | 5.08% | 8.77% | 10.69% | -44 bp | -80 bp | -165 bp | -181 bp |

Leveraged Loan Forward Performance as Prices Breach Various Barriers

| Price | Leveraged Loan Forward Returns | | | | Leveraged Loan Spread-to-worst Change (bps) | | | |
|-------|--------------------------------|----------|----------|-----------|---|----------|----------|-----------|
| | 3 months | 6 months | 9 months | 12 months | 3 months | 6 months | 9 months | 12 months |
| \$96 | -0.19% | -0.72% | 2.60% | 5.02% | 54 bp | 111 bp | 42 bp | 0 bp |
| \$95 | 0.37% | 2.77% | 5.27% | 7.19% | 37 bp | 4 bp | -39 bp | -61 bp |
| \$94 | 1.37% | 3.96% | 6.98% | 9.09% | -2 bp | -38 bp | -103 bp | -133 bp |
| \$93 | 1.56% | 4.55% | 7.74% | 9.53% | 2 bp | -55 bp | -125 bp | -143 bp |
| \$92 | 2.78% | 5.90% | 8.86% | 10.64% | -50 bp | -119 bp | -172 bp | -189 bp |

Source: JP Morgan Leveraged Loan Index data. As of January 6, 2022. Data shown represents historical performance once loan prices or yields hit certain thresholds. Past performance is not a guarantee of future results

Investment risks

Many senior loans are illiquid, meaning that the investors may not be able to sell them quickly at a fair price and/or that the redemptions may be delayed due to illiquidity of the senior loans. The market for illiquid securities is more volatile than the market for liquid securities. The market for senior loans could be disrupted in the event of an economic downturn or a substantial increase or decrease in interest rates. Senior loans, like most other debt obligations, are subject to the risk of default. The market for senior loans remains less developed in Europe than in the U.S. Accordingly, and despite the development of this market in Europe, the European Senior Loans secondary market is usually not considered as liquid as in the U.S. The value of investments, and any income from them, will fluctuate. This may partly be the result of changes in exchange rates. Investors may not get back the full amount invested.

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