

Credit Investments Group
January 2023

CREDIT SUISSE 

A case for senior loans



About the Credit Investments Group

The Credit Investments Group (CIG) was founded in 1997. In the following paper, CIG shares an introduction to senior loans.



Introduction

Traditional fixed income experienced challenges to performance in 2022 as the Fed implemented repeat interest rate hikes in the face of elevated inflation, which was exacerbated by macro-economic and sociopolitical events such as supply chain bottlenecks, the war in Ukraine and China's Covid policy. Floating rate instruments such as senior loans can be a viable option to mitigate interest rate risk, and the large shifts in price that can happen both in rising and declining rate environments.

In fact, because of its seniority in the capital structure, there is a greater focus on downside protection versus other traditional fixed income asset classes that are typically subordinated to loans. Against such a backdrop, investors can turn to loans for yield opportunities that fit within their risk parameters.



Executive summary

- Senior loans offer investors a compelling alternative to traditional fixed income investments
- Historically strong performance track record – only had three negative calendar years of returns for 31 years¹
- Typically, loans earn more yield per unit of risk than most other fixed income investments
- Given their senior and secured nature, they have historically exhibited superior recovery rates in the event of default
- In an environment of rising interest rates, we believe they will outperform other fixed income investments
- An allocation to senior loans can potentially both increase return and reduce volatility in a portfolio of traditional fixed income assets



¹ Source: Credit Suisse. Data from January 1992 to December 2022.

What are senior floating rate bank loans?

Senior loans, also known as leveraged loans and often historically called bank loans, refer to the debt instruments at the top of the capital structure. Senior loans are often floating-rate debt instruments that are originated by banks and/or other financial entities on behalf of corporations that typically have a below investment grade rating (BB+ or lower). A senior loan's interest payments consist of an adjustable base rate component tied to short-term rates (historically LIBOR, but now typically SOFR), and an additional credit spread, which varies with respect to the perceived credit risk of a given issuer.

They generally have shorter maturities and average lives than high yield bonds, and they are pre-payable at par. The interest rates of senior loans generally reset every 30 to 90 days, based on changes to the base rate.

Senior loans are generally the most senior debt obligations in the capital structure of non-investment grade companies – i.e. senior loan holders must be repaid before bond or equity holders in the event of a bankruptcy. Moreover, they are generally secured by a lien on a company's assets and/or stock.

Investors need to understand senior loans are not without their risks. As they are usually issued by below investment grade companies, there is a greater risk of default and thus potentially greater exposure to market volatility and liquidity risk when compared to investment grade debt obligations. There may also be limited liquidity due to the over-the-counter nature of the secondary trading market and transfer restrictions on the loans/credit agreements.

Risks

Senior Loan Risk. There are a number of risks associated with an investment in senior loans including credit risk, interest rate risk, liquidity risk and prepayment risk. Lack of an active trading market, restrictions on resale, irregular trading activity, wide bid/ask spreads and extended trade settlement periods may impair the ability to sell senior loans within its desired time frame or at an acceptable price and its ability to accurately value existing and prospective investments.

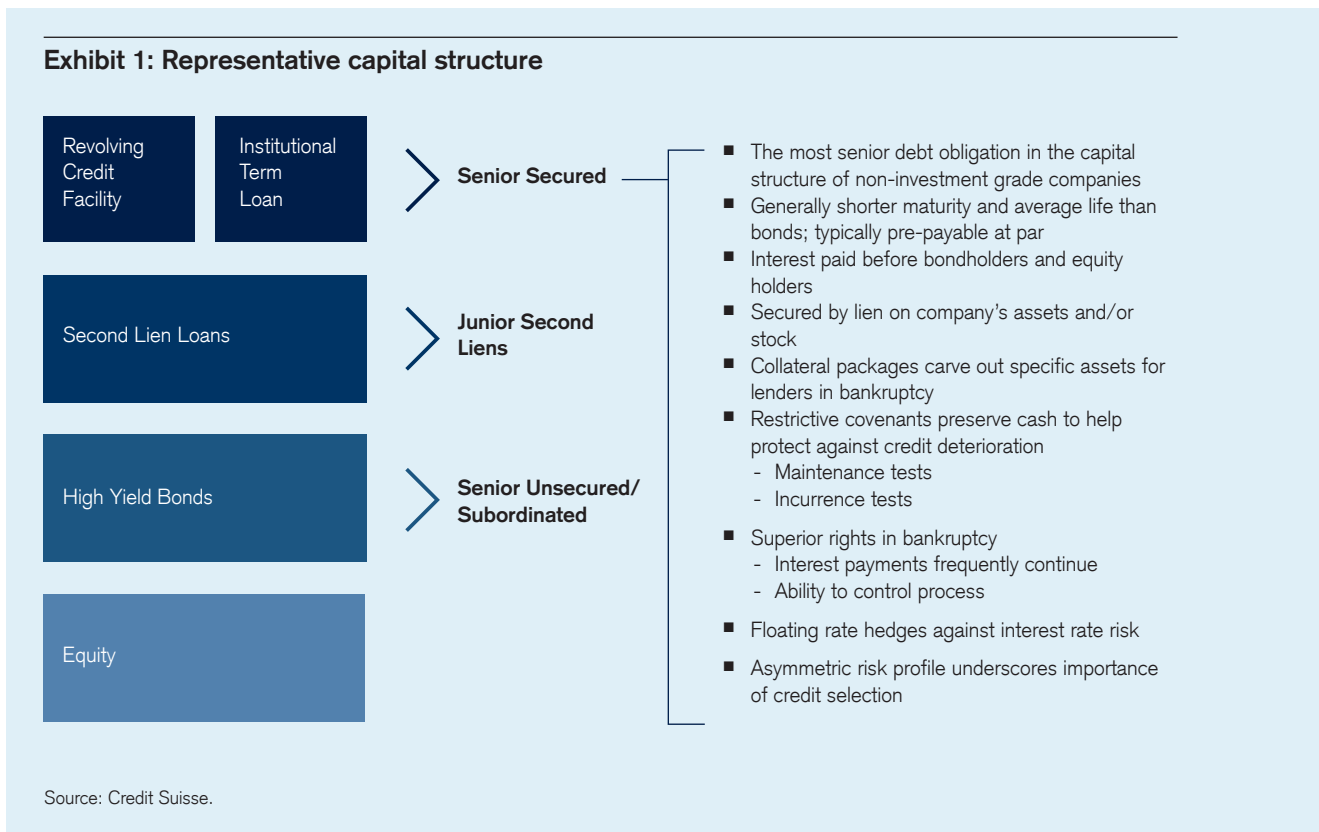
Variable or Floating Rate Instruments. Variable or floating rate instruments are securities that provide a periodic adjustment in the interest rate paid on the obligation. The interest rates for securities with variable interest rates are readjusted on set dates (such as the last day of the month or calendar quarter) and the interest rates for securities with floating rates are reset whenever a specified interest rate change occurs. Variable or floating interest rates generally reduce changes in the market price of securities from their original purchase price because, upon readjustment, such rates approximate market rates. Accordingly, as market interest rates decrease or increase, the potential capital appreciation or depreciation is less for variable or floating rate securities than for fixed rate obligations.

Borrower Credit Risk. Senior loans, like most other debt obligations, are subject to the risk of default. Default in the payment of interest or principal on a senior loan will result in a reduction in value.

Covenant Lite Loans Risk. Because covenant lite loans contain few or no financial maintenance covenants, they may not include terms that permit the lender of the loan to monitor the borrower's financial performance. Further, without financial maintenance covenants, lenders do not have the ability to force actions such as restructuring the loan.

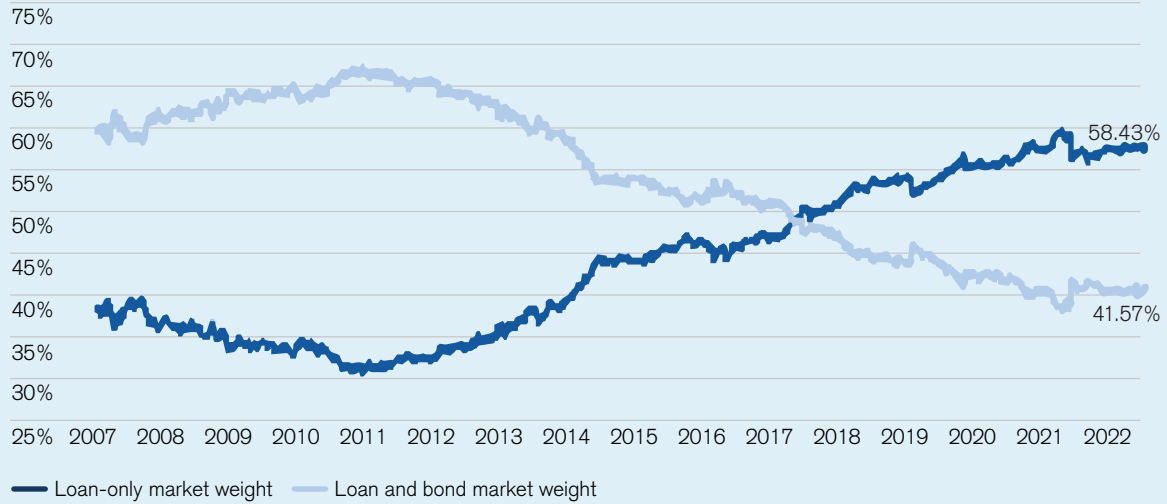
Capital structure

Senior loans are called “senior” because of their position within a company’s capital structure. As the name suggests, senior loans generally have a first priority on the borrower’s assets. In the event a company files for bankruptcy, creditors of the company are paid back in a specific order and senior loan holders are generally among the first to be repaid.



In the last 10 years, the share of loan-only issuers has grown considerably, as more issuers have opted for loan-only capital structures instead of a combination of senior loans and bonds. The increase in loan-only capital structures have contributed to some of the concern that the leveraged loan market has grown riskier relative to the high yield market. Issuers with more subordinated debt (e.g., high yield bonds) have historically been considered safer for senior, secured lenders due to the larger buffer between their secured position and losses from default. Importantly, however, “loan-only” generally refers to capital structures without high yield bonds, and therefore this measure does not account for other forms of subordinated capital (including public equity, private equity and some private debt) and does not capture the full variety among issuers.

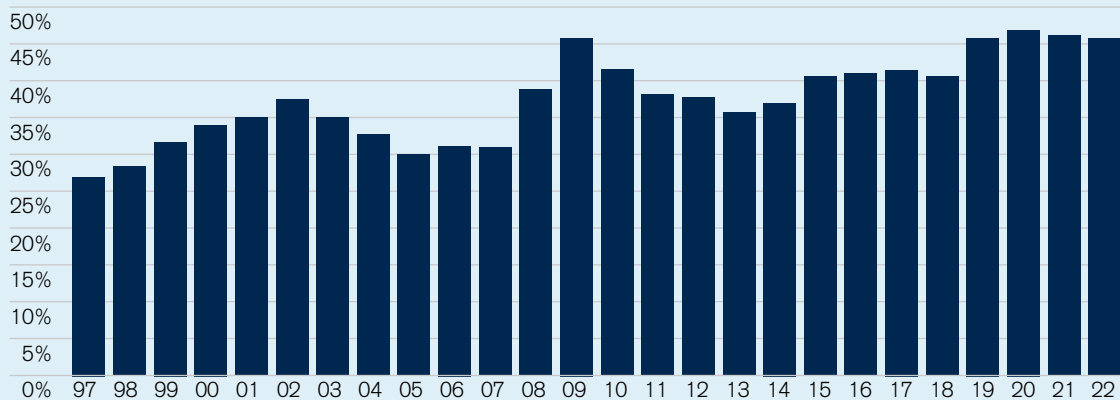
Exhibit 2: Portions of loan-only and loan-bond issuers in the leveraged loan market



Source: JP Morgan. Data as of December 31, 2022.

Aside from other forms of subordinated debt, among financial sponsor-backed issuers, equity contributions have been increasing over time, providing some additional subordination to the senior secured loan investors. While equity contributions in 2022 were 45.8%, 2020 and 2021 were record-breaking years for sponsor equity contributions at 46.8% and 45.9%, respectively. With larger equity contributions, a loan-only capital structure today may not be as concerning as a loan-only capital structure historically. Of course, the capital structures of individual issuers may vary widely, but larger equity contributions in the aggregate are a positive indicator for the market.

Exhibit 3: Financial sponsor equity contributions to loan issuers



Source: Morningstar LCD. Data as of December 31, 2022.

Why invest in senior loans?

Aside from offering compelling return potential and superiority in the capital structure, senior loans also offer investors a number of other advantages:

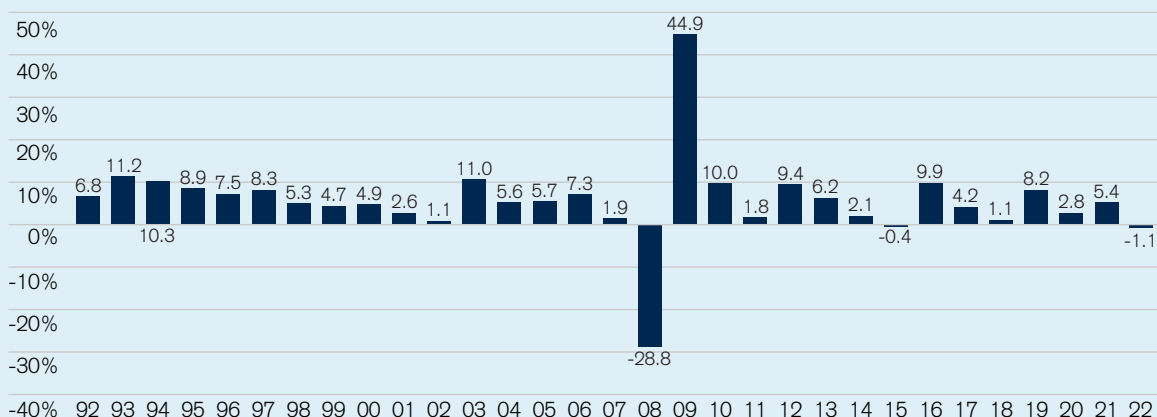
- Solid historical performance and low defaults
- Low correlation to other asset classes
- Interest payments that track the rate environment
- Hedge against rising interest rates and inflation
- Potential for higher income
- Predominantly institutional investor base

These attributes have led to many investors to make long-term strategic allocations to senior loans to reap the potential benefits through market cycles.

Historical performance

Historically, senior loans have provided investors with a steady level of income and return. In fact, since 1992, senior loans, as measured by the Credit Suisse Leveraged Loan Index, have only had three negative calendar years of returns. In 2008, the index suffered a drop of 28.75% – however, this was followed in 2009 by a 44.87% rally. The other negative year was in 2015, when the index declined by 0.38%. Like 2008, the market rebounded the following year, posting a 9.88% gain.

Exhibit 4: Annual returns of senior loans (%)

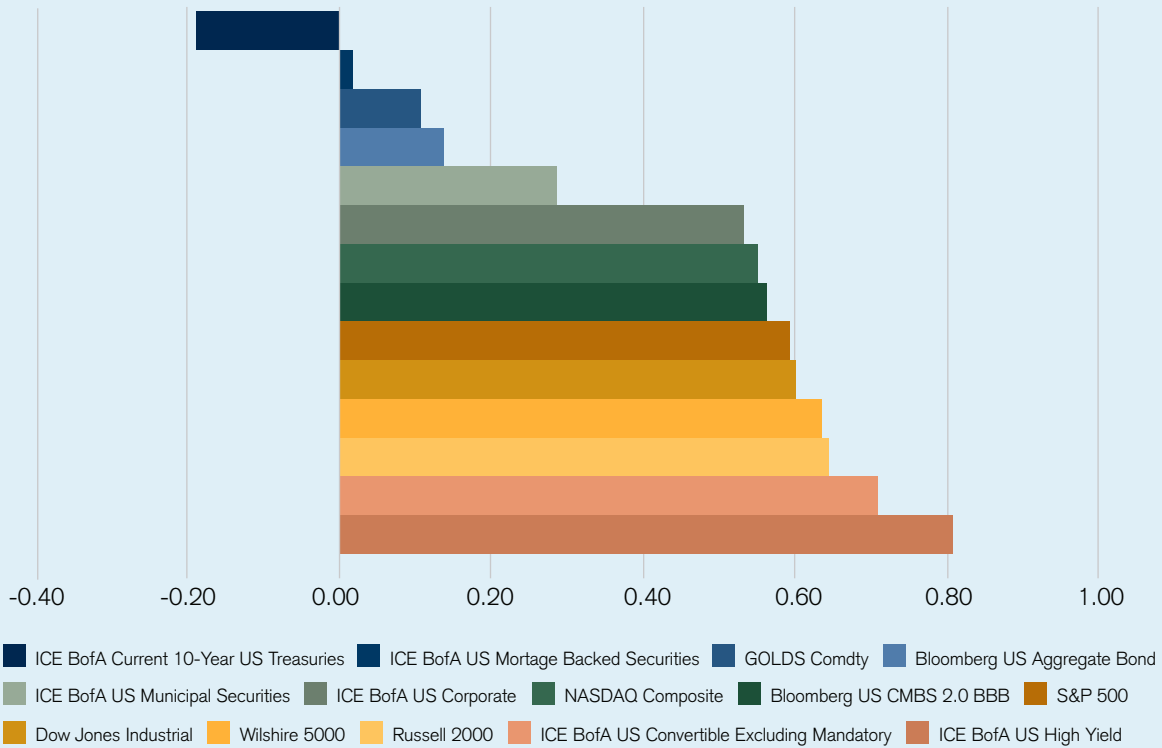


Historical performance indications and financial market scenarios are no guarantee of current or future performance.
Source: Credit Suisse. Data as of December 31, 2022.

Low correlation with other asset classes

Another key advantage of senior loans is the diversification benefit that they offer. As a result of their differentiated payoff profile, senior loans exhibit low historical correlations to core fixed income holdings. In fact, senior loans are more highly correlated to equities than traditional fixed income as leveraged companies in general are correlated to broader economic growth. Therefore, exposure to senior loans may help reduce volatility in a broader portfolio, while helping to improve overall performance.

Exhibit 5: Correlation of senior loans to various assets
(Jan 2012 - Dec 2022)



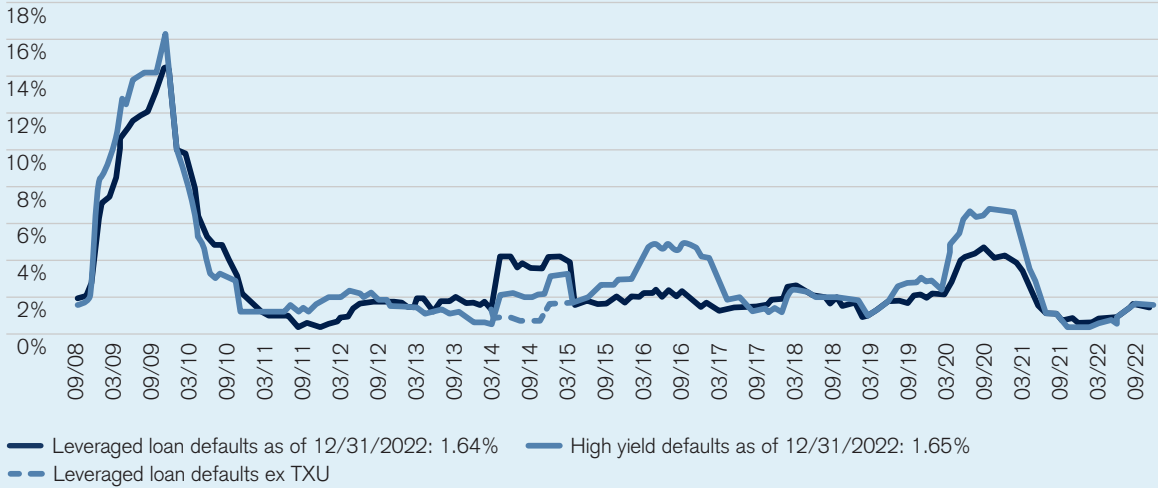
Source: Bloomberg. Data as of December 31, 2022.
Data from January 2012 to December 2022.

Low default rates

After a spike spurred by the onset of the Covid-19 pandemic, trailing 12-month senior loan default rates are still below historical averages, supported by very strong refinancing activity and earnings growth in 2021 and low interest rates, among other factors. In fact, given that long-term average loan default rates are 3.1%², with default rates remaining well-below the long-term average near all-time lows even through 2022 displays the loan market's resilience. Most issuers have also generally buttressed their balance sheets with plenty of cash to offset potential idiosyncratic risk.

² Source: JP Morgan. Data from January 1992 to December 2022.

Exhibit 6: 12 month rolling par-weighted default rates



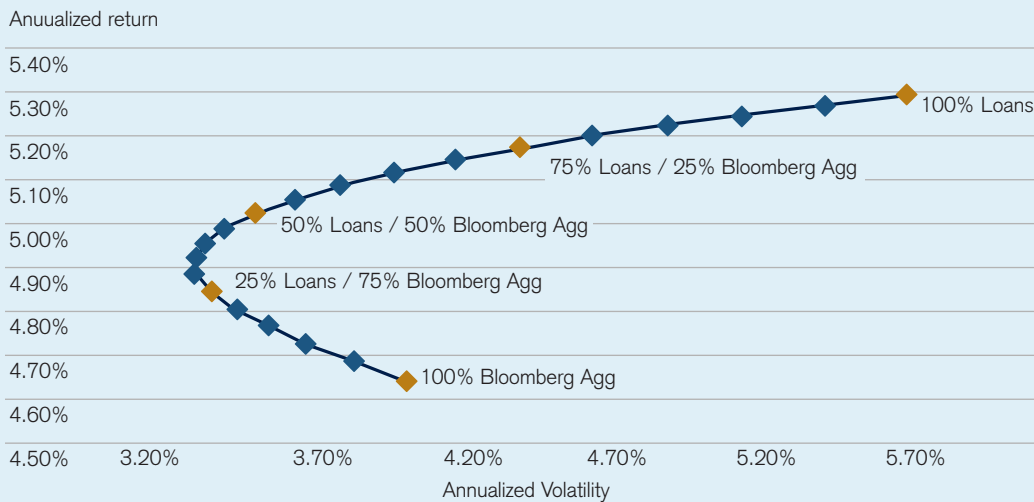
Source: JP Morgan. LTM Par weighted default rates. Data as of December 31, 2022.

Historically attractive risk-adjusted returns vs. other fixed income asset classes

One of the key advantages of investing in senior loans lies within their floating rate nature. Given their fixed coupons, bond prices have an inverse relationship to interest rates, leading to increased volatility. However, thanks to their floating coupons, senior loans do not experience the same levels of volatility. In fact, senior loan prices remain largely unaffected by interest rate changes because of their variable income. Therefore, senior loans tend to have near-zero interest rate duration. The higher a traditional fixed income investment's duration, the greater its interest rate risk and, therefore, the greater its volatility as a result of changes in interest rates.

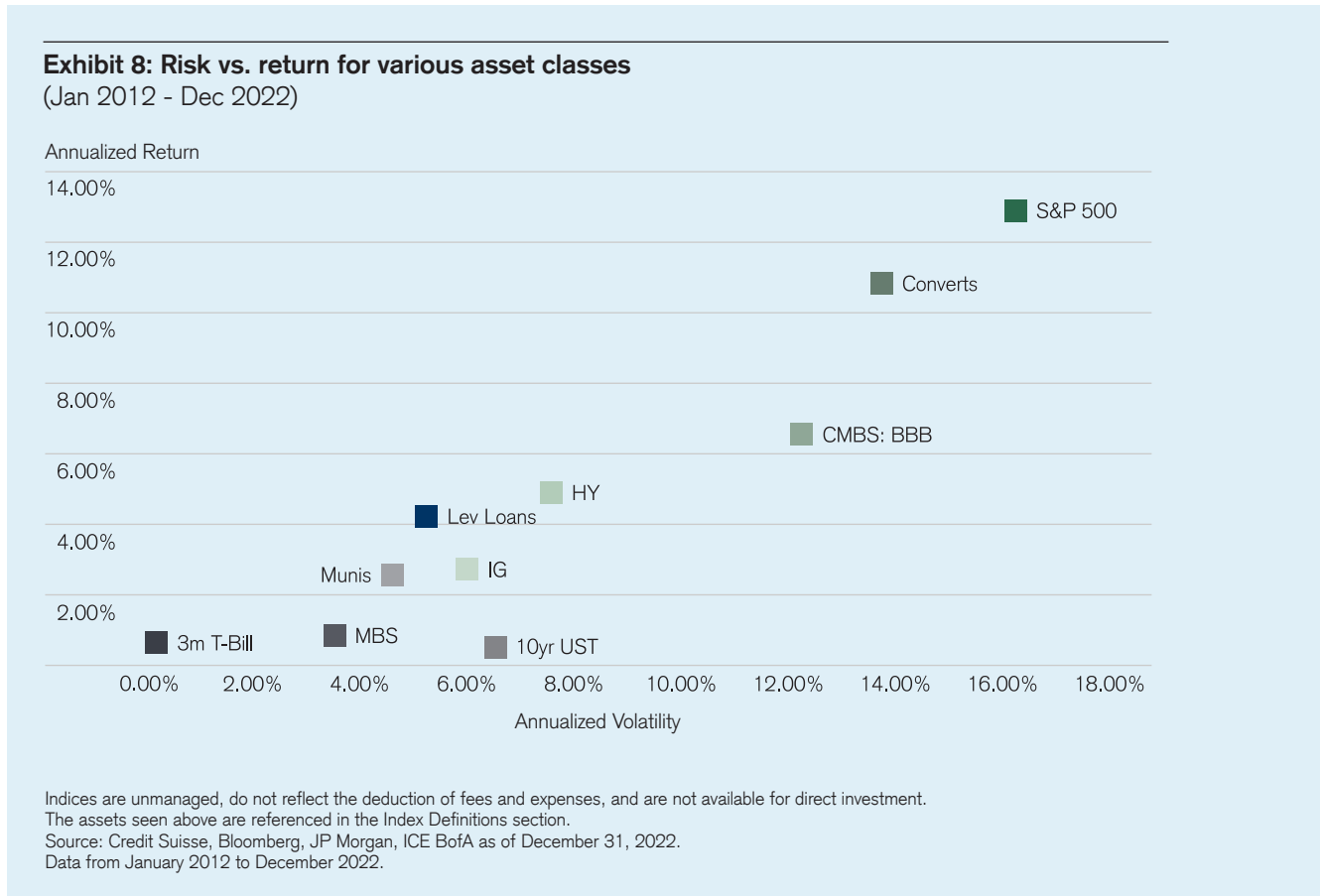
Generally, low duration investments have lower yields, as evidenced by 3-month US Treasury bills. However, because senior loans are extended to non-investment grade companies, and thus require a premium to be paid to investors for taking on additional credit risk, they may offer a compelling combination of higher yield and short duration. In short, an investment in senior loans offers investors more yield per unit of risk than most other fixed income investments.

Exhibit 7: Risk vs. return for senior loans and traditional fixed income (Jan 1992 - Dec 2022)



Indices are unmanaged, do not reflect the deduction of fees and expenses, and are not available for direct investment. Source: Credit Suisse, Bloomberg. Data as of December 31, 2022. Data from January 1992 to December 2022.

As discussed above, the floating rate nature of loans helps reduce price volatility due to interest rate changes. Over the last decade, senior loans have exhibited lower annualized volatility than more highly rated investment grade bonds.



Interest payments that track the rate environment

The interest paid on senior loans is comprised of an adjustable base rate component tied to short-term rates (historically LIBOR, but now typically SOFR), plus an additional credit spread adjustment (CSA), which varies with respect to the perceived credit risk of a given issuer. To ensure that the adjustable element of the interest payments reflect the market interest rates, the loan's interest rate generally resets every 30 to 90 days, based on changes to the base rate.

Hedge against rising interest rates and inflation

As interest rates rise, the price of traditional fixed income investments tends to fall. However, because of the adjustable nature of the interest payments, senior loans have a very low sensitivity to changes in interest rates. Therefore, in an environment of rising interest rates, we believe senior loans will outperform other fixed income investments. At the same time, since interest rates have historically tended to rise during periods of high inflation, senior loans can also provide inherent inflation protection.

In the past 30 years, there have been five significant periods where interest rates have risen: February 1994 – February 1995, June 1999 – May 2000, June 2004 – June 2006, December 2015 – December 2018, and March 2022 – December 2022. In each of these periods, senior loans have performed well relative to other asset classes.

Exhibit 9: Returns during rising rate environments

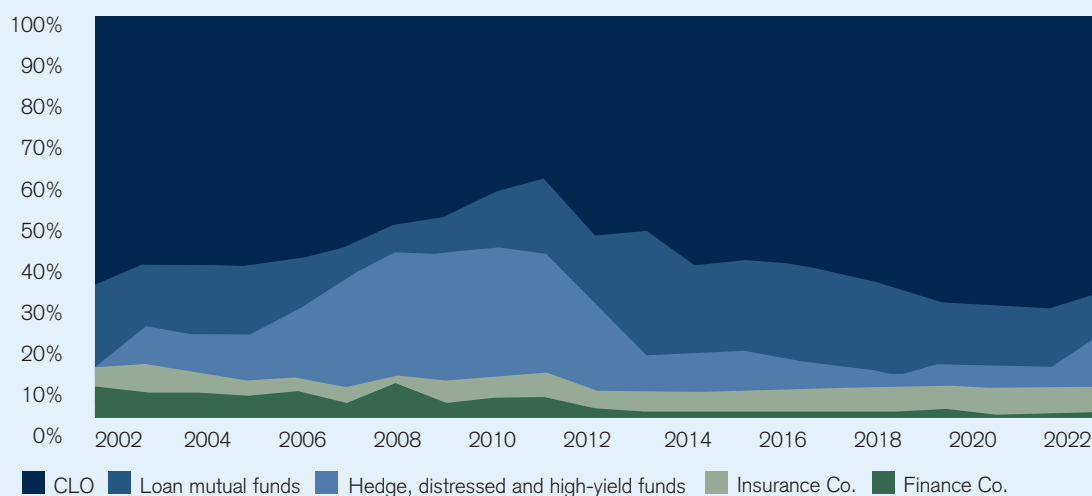
Period	Fed Funds Move	Leveraged Loans	High Yield Bonds	Bloomberg Aggregate	S&P 500
Feb '94 - Feb '95	300 bps	10.38%	1.38%	0.01%	4.44%
Jun '99 - May '00	150 bps	3.93%	-3.09%	2.11%	10.47%
Jun '04 - Jun '06	425 bps	12.64%	17.51%	6.54%	17.73%
Dec '15 - Dec '18	225 bps	14.75%	20.24%	5.95%	28.31%
Mar '22 - Dec '22	425 bps	-0.92%	-7.88%	-10.09%	-10.99%

Source: Credit Suisse, Bloomberg, ICE BofA. Data as of December 31, 2022.
Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Investors in senior loans

The senior loan market has largely been an institutionally dominated market since its genesis. There are higher barriers to entry compared to traditional equity or fixed income markets, which inherently blocks retail investors from buying individual loans on the open market. Broadly, this dynamic creates a stickier investor base to the asset class, which limits the volume of daily inflows/outflows that retail driven markets experience. Lastly, since CLOs make up roughly two-thirds of the loan market and have a typical life of roughly eight to ten years, it creates a strong buyer base for the market as a whole.

Exhibit 10: Institutional investors by type



Source: Morningstar LCD. Data as of December 31, 2022.

Conclusion

Senior loans historically have a long-term track record of attractive absolute and risk-adjusted returns. Along with other attributes including, low default rates, a hedge against rising rates and lower correlations, it is not surprising that many institutional investors have added loans as a core allocation in their portfolios. As a result, the leveraged loan market has grown to approximately USD \$1.5 trillion³ in size.

From both a fundamental and technical perspective, we believe that the asset class currently offers potentially attractive investment opportunities for the various reasons outlined in this paper. In a difficult environment for traditional fixed income such as the one we are currently experiencing, we believe that senior loans are a viable alternative for investors seeking attractive absolute and relative yields.



³ Source: Credit Suisse. Data as of December 31, 2022

Index definitions

ICE BofA US 3-Month Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. At the end of the month that issue is sold and rolled into a newly selected issue. The issue selected at each month-end rebalancing is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date. To qualify for selection, an issue must have settled on or before the month-end rebalancing date.

Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

ICE BofA US Corporate Index tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of \$250 million. Original issue zero coupon bonds, 144a securities (with and without registration rights), and pay-in-kind securities (including toggle notes) are included in the index. Callable perpetual securities are included provided they are at least one year from the first call date. Fixed-to-floating rate securities are included provided they are callable within the fixed rate period and are at least one year from the last call prior to the date the bond transitions from a fixed to a floating rate security. Contingent capital securities ("cocos") are excluded, but capital securities where conversion can be mandated by a regulatory authority, but which have no specified trigger, are included.

Other hybrid capital securities, such as those issues that potentially convert into preference shares, those with both cumulative and non-cumulative coupon deferral provisions, and those with alternative coupon satisfaction mechanisms, are also included in the index. Equity-linked securities, securities in legal default, hybrid securitized corporates, eurodollar bonds (USD securities not issued in the US domestic market), taxable and tax-exempt US municipal securities and DRD-eligible securities are excluded from the index. Index constituents are market capitalization weighted. Accrued interest is calculated assuming next-day settlement. Cash flows from bond payments that are received during the month are retained in the index until the end of the month and then are removed as part of the rebalancing. Cash does not earn any reinvestment income while it is held in the index. Information concerning constituent bond prices, timing and conventions is provided in the ICE BofA Bond Index Guide, which can be accessed on our public website (<https://indices.theice.com>), or by sending a request to iceindices@theice.com. The index is rebalanced on the last calendar day of the month, based on information available up to and including the third business day before the last business day of the month. New issues must settle on or before the calendar month end rebalancing date in order to qualify for the coming month. No changes are made to constituent holdings other than on month end rebalancing dates.

ICE BofA US High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of \$250 million. In addition, qualifying securities must have risk exposure to

countries that are members of the FX-G10, Western Europe or territories of the US and Western Europe. The FX-G10 includes all Euro members, the US, Japan, the UK, Canada, Australia, New Zealand, Switzerland, Norway and Sweden. Original issue zero coupon bonds, 144a securities (both with and without registration rights), and pay-in-kind securities (including toggle notes) are included in the index. Callable perpetual securities are included provided they are at least one year from the first call date. Fixed-to-floating rate securities are included provided they are callable within the fixed rate period and are at least one year from the last call prior to the date the bond transitions from a fixed to a floating rate security. Contingent capital securities (“cocos”) are excluded, but capital securities where conversion can be mandated by a regulatory authority, but which have no specified trigger, are included. Other hybrid capital securities, such as those issues that potentially convert into preference shares, those with both cumulative and non-cumulative coupon deferral provisions, and those with alternative coupon satisfaction mechanisms, are also included in the index. Securities issued or marketed primarily to retail investors, equity-linked securities, securities in legal default, hybrid securitized corporates, eurodollar bonds (USD securities not issued in the US domestic market), taxable and tax-exempt US municipal securities and DRDeligible securities are excluded from the index.

ICE BofA Current 10-Year US Treasury Index

is a one-security index comprised of the most recently issued 10-year US Treasury note. The index is rebalanced monthly. In order to qualify for inclusion, a 10-year note must be auctioned on or before the third business day before the last business day of the month.

Credit Suisse Leveraged Loan Index is designed to mirror the investable universe of the \$US-denominated leveraged loan market. New loans are added to the index on their effective date if they qualify according to the following

criteria: Loans must be rated “5B” or lower; only fully-funded term loans are included; the tenor must be at least one year; and the Issuers must be domiciled in developed countries (Issuers from developing countries are excluded). Fallen angels are added to the index subject to the new loan criteria. Loans are removed from the index when they are upgraded to investment grade, or when they exit the market (for example, at maturity, refinancing or bankruptcy workout). Note that issuers remain in the index following default. Total return of the index is the sum of three components: principal, interest, and reinvestment return. The cumulative return assumes that coupon payments are reinvested into the index at the beginning of each period.

S&P 500® Index is widely regarded as the best single gauge of large-cap U.S. equities and serves as the foundation for a wide range of investment products. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

ICE BofA US Convertible Excluding Mandatory Index

tracks the performance of publicly issued US dollar denominated non-mandatory convertible securities of US companies. Qualifying securities must have at least \$50 million face amount outstanding and at least one month remaining to the final conversion date. In order to qualify for inclusion in the index securities must pay at a fixed rate, which includes those with zero, step-up and rating-sensitive coupons. The underlying equity of qualifying securities must be publicly listed and actively trading, and have a US country of issue and a US country of risk. Convertible securities where the underlying is a basket of equities qualify for inclusion in the index, as do convertible preferred securities. Securities with mandatory conversion features and those in legal default are excluded from the index, as are synthetic and reverse convertibles, floating rate securities and securities with suspended or inactive underlying equities.

FTSE 3-Month Treasury Bill Index is intended to track the daily performance of 3 month US Treasury bills.

Russell 2000® Index measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 7% of the total market capitalization of that index, as of the most recent reconstitution. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

FT Wilshire 5000 Index is a broad-based market capitalization weighted index that aims to capture 100% of the US investible market. The FT Wilshire 5000 Index Series comprises of the large, small and micro capitalization segments of the US equity market.

Dow Jones Industrial Average is a price-weighted average of 30 blue-chip stocks that are generally the leaders in their industry. It has been a widely followed indicator of the stock market since October 1, 1928.

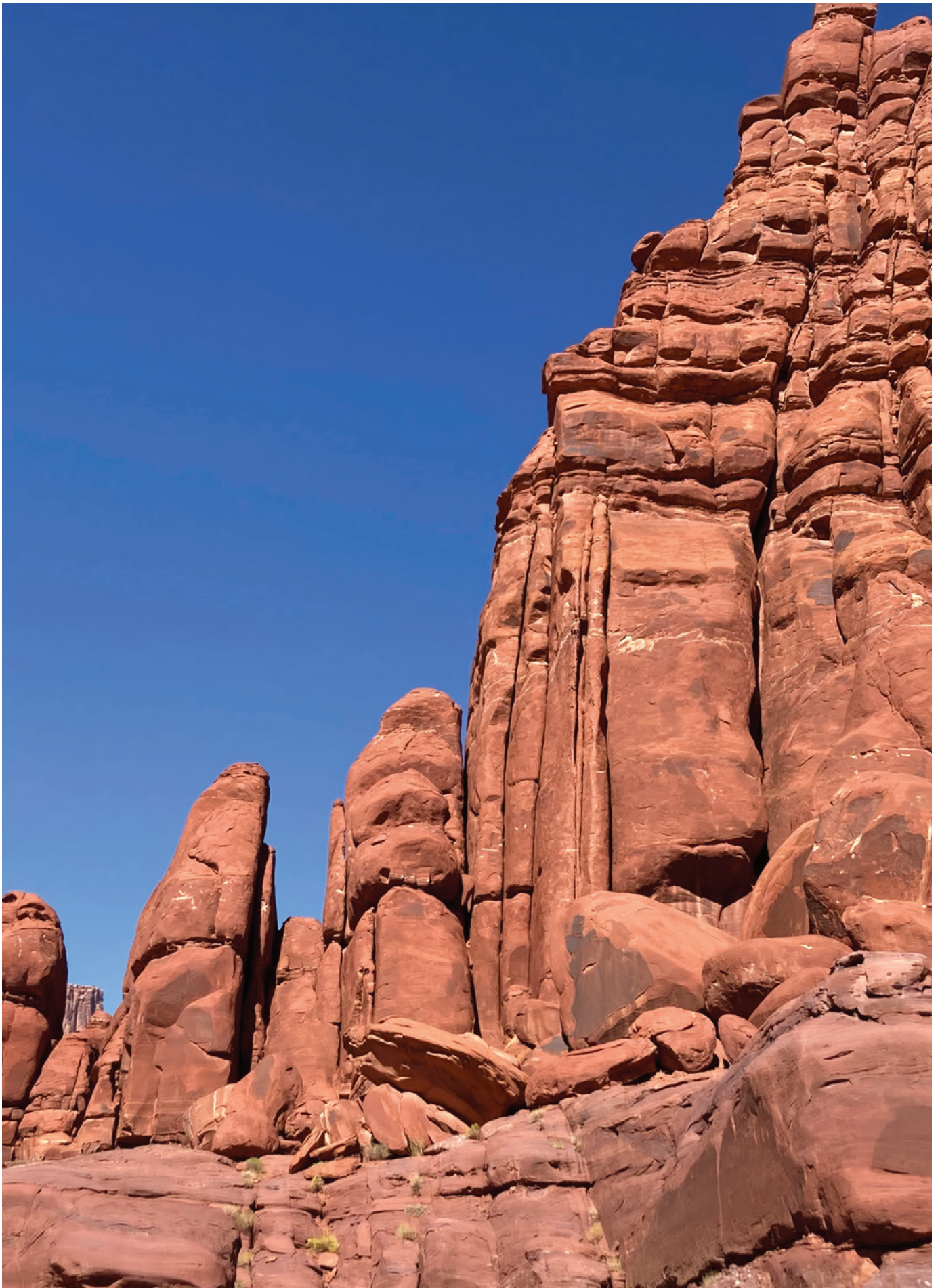
Nasdaq Composite Index measures all Nasdaq domestic and international based common type stocks listed on The Nasdaq Stock Market. To be eligible for inclusion in the Index, the security's U.S. listing must be exclusively on The Nasdaq Stock Market (unless the security was dually listed on another U.S. market prior to January 1, 2004 and has continuously maintained such listing).

The security types eligible for the Index include common stocks, ordinary shares, ADRs, shares of beneficial interest or limited partnership interests and tracking stocks. Security types not included in the Index are closed-end funds, convertible debentures, exchange traded funds, preferred stocks, rights, warrants, units and other derivative securities.

Bloomberg US CMBS 2.0 BBB Index measures the market of conduit and fusion CMBS deals with a minimum current deal size of \$300 million and a credit rating of BBB (using the middle rating of Moody's, S&P, and Fitch).

ICE BofA Municipal Securities Index includes USD denominated, fixed rate, tax exempt bonds. The index includes state and local general obligation bonds, revenue bonds, insured and pre-refunded bonds. This methodology was created by ICE Indices to measure the performance of the underlying interest of the U.S. Municipal and U.S. Municipal High Yield Index.

ICE BofA US Mortgage Backed Securities Index tracks the performance of US dollar denominated fixed rate and hybrid residential mortgage pass-through securities publicly issued by US agencies in the US domestic market.



Disclosures

Important information

This material has been prepared by CREDIT SUISSE GROUP AG and/or its affiliates ("Credit Suisse").

It is provided for informational and illustrative purposes only, does not constitute an advertisement, appraisal, investment research, research recommendations, investment recommendations or information recommending or suggesting an investment strategy, and it does not contain financial analysis. Moreover it does not constitute an invitation or an offer to the public or on a private basis to subscribe for or purchase products or services. Benchmarks, to the extent mentioned, are used solely for purposes of comparison. The information contained in this document has been provided as a general commentary only and does not constitute any form of personal recommendation, investment advice, legal, tax, accounting or other advice or recommendation or any other financial service. It does not take into account the investment objectives, financial situation or needs, or knowledge and experience of any persons. The information provided is not intended to constitute any kind of basis on which to make an investment, divestment or retention decision. Credit Suisse recommends that any person potentially interested in the elements described in this document shall seek to obtain relevant information and advice (including but not limited to risks) prior to taking any investment decision.

The information contained herein was provided as at the date of writing, and may no longer be up to date on the date on which the reader may receive or access the information. It may change at any time without notice and with no obligation to update.

To the extent that this material contains statements about future performance, such statements are forward looking and subject to a number of risks and uncertainties. It should be noted that historical returns, past performance and financial market scenarios are no reliable indicator of future performance. Significant losses are always possible.

This material is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of, or is located in, any jurisdiction where such distribution, publication, availability or use would be contrary to applicable law or regulation, or which would subject Credit Suisse to any registration or licensing requirement within such jurisdiction.

The recipient is informed that a possible business connection may exist between a legal entity referenced in the present document and an entity part of Credit Suisse and that it may not be excluded that potential conflict of interests may result from such connection.

This document has been prepared from sources Credit Suisse believes to be reliable but does not guarantee its accuracy or completeness.

Credit Suisse may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to any company or issuer mentioned.

This document may provide the addresses of, or contain hyperlinks to, websites. Credit Suisse has not reviewed the linked site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to Credit Suisse's own website material) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this document. Accessing such website or following such link through this document or Credit Suisse's website shall be at your own risk.

This document is intended only for the person to whom it is issued by Credit Suisse. It may not be reproduced either in whole, or in part, without Credit Suisse's prior written permission.

If distributed by Credit Suisse Securities (India) Private Limited India: This report is distributed by Credit Suisse Securities (India) Private Limited (CIN no. U67120MH1996PTC104392) regulated by the Securities and Exchange Board of India as Portfolio Manager (registration no. INP000002478), Research Analyst (registration no. INH 000001030), and as Stock Broker (registration no. INZ000248233), having registered address at 9th Floor, Ceejay House, Dr.A.B. Road, Worli, Mumbai - 18, India, T- +91-22 6777 3777

If distributed by Credit Suisse Financial Services (Israel) Ltd. in Israel: This document is distributed by Credit Suisse Financial Services (Israel) Ltd. Credit Suisse AG, including the services offered in Israel, is not supervised by the Supervisor of Banks at the Bank of Israel, but by the competent banking supervision authority in Switzerland. Credit Suisse Financial Services (Israel) Ltd. is a licensed investment marketer in Israel and thus, its investment marketing activities are supervised by the Israel Securities Authority.

If distributed by Credit Suisse Securities (Japan) Limited ("CSJL") in Japan: In Japan, this material is distributed by Credit Suisse Securities (Japan) Limited ("CSJL"), a registered Financial Instruments Firm (Director-General of Kanto Local Finance Bureau (Kinsho) No. 66). CSJL is a member of Japan Securities Dealers Association, Financial Futures Association of Japan, Japan Investment Advisers Association and Type II Financial Instruments Firms Association.

South Africa: The legal entities Credit Suisse AG (FSP number 9788) and Credit Suisse UK (FSP number 48779) are registered as financial services providers with the Financial Sector Conduct Authority in South Africa Copyright © 2023. CREDIT SUISSE GROUP AG and/or its affiliates. All rights reserved.



Credit Suisse Asset Management
Eleven Madison Avenue
New York, NY 10010
credit-suisse.com