

BANK LOANS: AN INSTITUTIONAL APPROACH



A Simple Equation: Distribution Yield – Default Rate + Recovery Rate = ?

It is not $E=MC^2$, but it's a significant reason why institutions own approximately 66% of the bank loan market.

Why don't as many retail investors invest in bank loan funds? The usual response: too volatile, too risky.

Really? Not when compared to these major asset classes:

	1-Year Performance as of 12/31/22
■ S&P 500® Index	-18.11%
■ Nasdaq Composite Index	-32.54%
■ Bloomberg U.S. Aggregate Bond Index	-13.01%
■ MSCI EAFE® Index (net)	-14.45%
■ Morningstar LSTA Leveraged Loan Index	-0.63%

Do retail investors truly understand the potential of bank loans?

While bank loan ownership is below 10% for retail, institutions (banks, pensions, endowments, foundations, insurance companies and others that invest in collateralized loan obligations (CLOs)) own about two-thirds of the space with no sign of letting up, according to a Barclays Research note in December 2022.

Why? The answer is in the math: two calculations, return per unit of risk and the effect of defaults on a loan portfolio. For the first calculation, standard deviation for bank loans has been significantly less than large-cap equities, small cap equities, and even high yield bonds (see Chart 1 below).

CHART 1: LOANS AND HIGH YIELD VS. EQUITY MARKETS (1/1/92 – 12/30/22)

	Annualized Return	Standard Deviation	Return Per Unit of Risk	Rolling 3-Year Periods		
				Best	Worst	% Negative
Leveraged Loans	5.29%	5.40%	1.0	17.5%	-8.0%	3%
High Yield Bonds	7.08%	8.41%	0.8	26.1%	-7.6%	7%
Large Cap Equity	9.57%	14.80%	0.6	32.8%	-16.1%	18%
Small Cap Equity	8.92%	19.31%	0.5	29.6%	-17.8%	13%

Past performance is not indicative of future results.

The High Yield, Leveraged Loan, Large Cap Equity, and Small Cap Equity Markets are represented by the Bloomberg U.S. Corporate High Yield Bond Index, Credit Suisse Leveraged Loan Index, S&P 500® Index, and Russell 2000® Index, respectively. Returns were calculated using monthly data and begin with the inception of the Credit Suisse Leveraged Loan Index on 1/1/92. Source: Credit Suisse, Standard & Poor's, FTSE Russell, Bloomberg.

For the second calculation: institutional investors have recognized that a sector with a 3% historical default rate will also, historically, receive par back 97% of the time (the inverse of the default rate). Additionally, a default does not portend a 100% loss of that specific issue. Yes, market participants understand bank loans to generally be less liquid than many other fixed income sectors. Market upheavals can create dislocations between the bid price and the actual value of these assets. Diversification, through multiple issuers, may provide a ballast to help weather the storm during market dislocations. Defaults can be partially offset by not only the higher distribution yields of this sector, but also from the monetization of the collateral of these first and second lien assets. Bank loans are secured by liens against the assets of the issuing company. The sale of those assets, following an issuer default, flows back to the holder of the loan, thereby counterbalancing some of the loan loss.

In essence, we can construct a mathematical equation to show how the distribution yield and the monetization of the collateral partially offset the default:

$$\text{Distribution Yield} - \text{Default Rate} + \text{Recovery Rate} = ?$$

For a hypothetical case, the inputs we will use are: 4% for distribution yield; 3% for default rate; 64% for recovery rate (the recovery rate equals the percentage of the default that is recovered through the sale of the issuer's collateral. Sixty-four percent is the historical average recovery).

Using these numbers, our equation becomes:

$$4\% - 3\% + (3\% \times 0.64) \text{ or } 4\% - 3\% + 1.92\% = 2.92\%$$

This equation shows that, should a holder of a basket of bank loans (i.e., a mutual fund) continue to hold the basket through a default cycle of 3%¹ (the historical default rate of the bank loan sector), given the above assumed distribution yield and recovery rate, the investor would have maintained a positive income return. These inputs can be changed to show any scenario the investor chooses. For example, let's continue with a 4% distribution yield; now use an 8% default rate; use a 50% recovery rate.

Using the above numbers our equation becomes:

$$4\% - 8\% + (8\% \times 0.5) \text{ or } 4\% - 8\% + 4\% = 0$$

So, even more than doubling the historical default rate to 8% and decreasing the recovery rate down to 50%, the investor's income returns would be flat. However, from an income standpoint, should the loss from the sum of the defaults and their subsequent recovery rates exceed that of the distribution yield, the holder would then generate a loss versus their income for that period. Keep in mind this calculation solely focuses on any defaulted positions; the remainder of the holdings in the basket under this scenario return par. If the investor bought the basket of holdings below par (bank loans typically trade below par) history shows they would have received a positive return due to the accretion of the rest of the basket to par.

Making this scenario more interesting is that current distribution yields are not at 4%; rather, they are approximately 7.75% for bank loan mutual funds as of December 31, 2022.² Additionally, the average bank loan price is not at par, but closer to \$92 as of December 31, 2022. An investor would currently have a large cushion with this distribution yield over the two scenarios above and owning the portfolio well below par has historically benefited the investor with the accretion to par of the underlying loans.

¹JP Morgan, 1/5/2023

²Virtus Performance & Analytics

THE PRICE IS RIGHT – VALUE HAS BEEN RESTORED

Current Prices Support an Improved Return Outlook

Chart 2 illustrates how investors have historically captured much of the upside of equities. With prices at current levels, bank loans have historically shown robust performance over the subsequent 12 months.

CHART 2. LEVERAGED LOANS FORWARD PERFORMANCE AS PRICES BREACH VARIOUS BARRIERS

Price Barrier	Leveraged Loans Forward Returns (%)				Leveraged Loans 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	111	42	0
\$95	0.37	2.77	5.27	7.19	37	4	-39	-61
\$94	1.37	3.96	6.98	9.09	-2	-38	-103	-133
\$93	1.56	4.55	7.74	9.53	2	-55	-125	-143
\$92	2.78	5.90	8.86	10.64	-50	-119	-172	-189

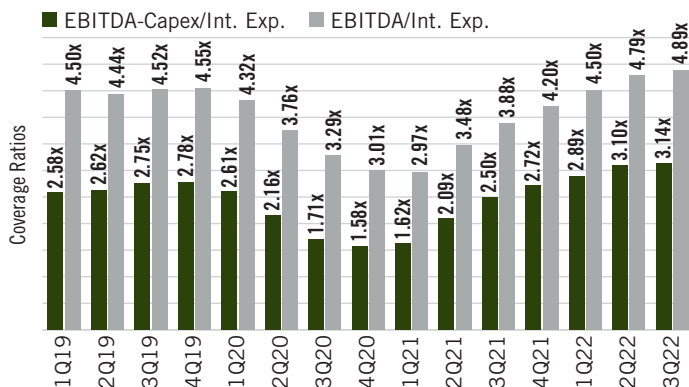
Past performance is not indicative of future results. Note: Represents buying the JPM loan index on the date prices fall below a certain level and yields initially rise above 8%. Source: JPMorgan Research 1/6/23.

INVESTMENT “PHILOSOPHY”: IT’S NOT AT ALL GREEK TO SMART INVESTORS

Credit risk and relative value are much more important than the trajectory of rates. The Seix leveraged loan investment philosophy emphasizes BB and single-B rated loans, seeking to invest in the healthiest and most undervalued credits in the non-investment grade space. At 5.8 times, the Virtus Seix Floating Rate High Income Fund’s (SAMBX) average EBITDA/Interest coverage beats JP Morgan’s Leveraged Loan Index coverage of 4.79 times³ (Chart 3). In the third quarter of 2022, SAMBX rose to 5.9 times versus the Index’s 4.89 times. An issuer’s interest coverage and overall leverage are important determinants of its ability to withstand difficult economic environments and to service its debt. The Fund’s historical average default rate of 0.7% since inception 3/1/06 is a testament to its focus on quality companies.

While easy monetary policy enabled CCCs to outperform BBs from 2015 through about March 2020 (the start of the COVID-19 era), higher rates have shown what occurs when companies must prove themselves. Regarding the Federal Reserve (Fed), will the next 10 years look like the last 10? Will the Fed continue to backstop weak companies? Or will there be a return to a more normalized market where winners and losers are determined by the strength of their business models? If the latter, not only should passive investment be considered with care but the focus should return to higher-quality managers who have demonstrated an ability to participate and protect. Don’t forget: the return of capital is sometimes more important than the return on capital.

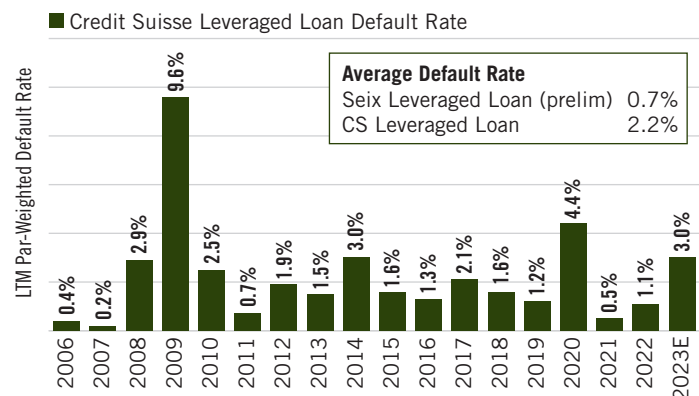
CHART 3: COVERAGE RATIO FOR THE INDEX INCREASED FOR A SIXTH STRAIGHT QUARTER



Sources: JP Morgan, CapitalIQ. Data as of 9/30/2022 (latest available).

³As of June 30, 2022.

CHART 4: GOING FORWARD DEFAULT RATES ARE EXPECTED TO TREND HIGHER



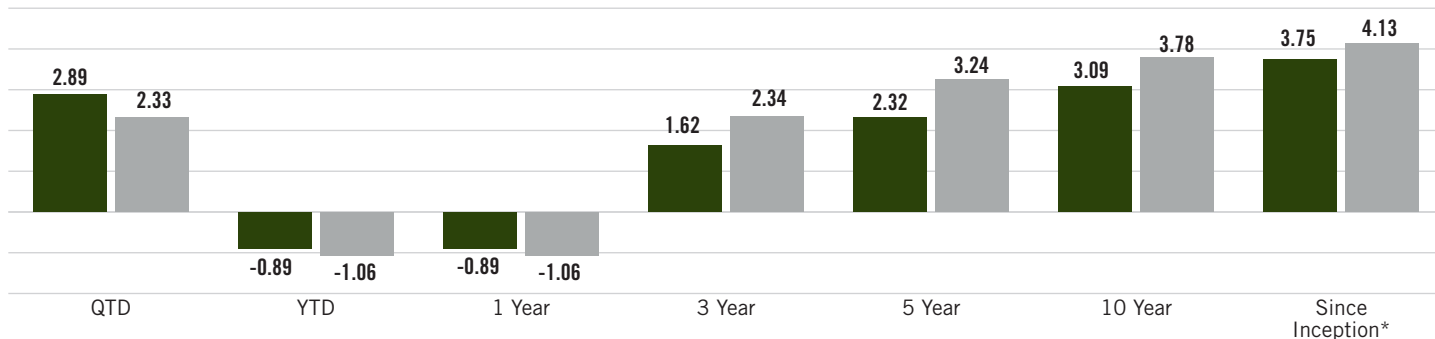
Past performance is not indicative of future results. As of 12/31/22. Source: Credit Suisse.

Average Default Rate
 Seix Leveraged Loan (prelim) 0.7%
 CS Leveraged Loan 2.2%

VIRTUS SEIX FLOATING RATE HIGH INCOME FUND

Average Annual Total Returns (%) as of 12/30/22

■ Fund Class I ■ Index



*Inception: 3/1/2006

Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value will fluctuate so that shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. Please visit virtus.com for performance data current to the most recent month end. This share class has no sales charges and is not available to all investors. Other share classes have sales charges. See virtus.com for details.

Benchmark life performance is reported from 02/28/06.

The fund class gross expense ratio is 0.71%. The net expense ratio is 0.62%, which reflects a contractual expense reimbursement in effect through 4/30/2023.

Average annual total return is the annual compound return for the indicated period and reflects the change in share price and the reinvestment of all dividends and capital gains. Returns for periods of one year or less are cumulative returns.

Index: The Credit Suisse Leveraged Loan Index is a market-weighted index that tracks the investable universe of the U.S. dollar denominated leveraged loans. The index is calculated on a total return basis. The index is unmanaged, its returns do not reflect any fees, expenses, or sales charges, and is not available for direct investment.



To learn more about Seix leveraged finance investment strategies, please visit virtus.com or call us at 800-243-4361.

IMPORTANT RISK CONSIDERATIONS

Credit & Interest: Debt instruments are subject to various risks, including credit and interest rate risk. The issuer of a debt security may fail to make interest and/or principal payments. Values of debt instruments may rise or fall in response to changes in interest rates, and this risk may be enhanced with longer-term maturities. **Bank Loans:** Bank loans may be unsecured or not fully collateralized, may be subject to restrictions on resale, may be less liquid and may trade infrequently on the secondary market. Bank loans settle on a delayed basis; thus, sale proceeds may not be available to meet redemptions for a substantial period of time after the sale of the loan. **High Yield Fixed Income Securities:** There is a greater risk of issuer default, less liquidity, and increased price volatility related to high yield securities than investment grade securities. **Market Volatility:** The value of the securities in the portfolio may go up or down in response to the prospects of individual companies and/or general economic conditions. Price changes may be short- or long-term. Local, regional, or global events such as war or military conflict (e.g., Russia's invasion of Ukraine), acts of terrorism, the spread of infectious illness (e.g., COVID-19 pandemic) or other public health issues, recessions, or other events could have a significant impact on the portfolio and its investments, including hampering the ability of the portfolio's manager(s) to invest the portfolio's assets as intended. **Prospectus:** For additional information on risks, please see the fund's prospectus.

Bloomberg U.S. Corporate High Yield Bond Index is an unmanaged market value weighted index that covers the universe of fixed rate, non-investment grade debt. **Credit Suisse Leveraged Loan Index** is a market-weighted index that tracks the performance of institutional leveraged loans. The **Russell 2000® Index** is a market capitalization-weighted index of the 2,000 smallest companies in the Russell Universe, which comprises the 3,000 largest U.S. companies. The **S&P 500® Index** is a free-float market capitalization-weighted index of 500 of the largest U.S. companies. The index is calculated on a total return basis with dividends reinvested. The **Nasdaq Composite Index** is a market capitalization-weighted index of more than 3,700 stocks listed on the Nasdaq stock exchange. As a broad index heavily weighted toward the important technology sector, the Nasdaq Composite Index has become a staple of financial markets reports. The **Bloomberg U.S. Aggregate Bond Index** measures the U.S. investment grade fixed rate bond market. The index is calculated on a total return basis. The **MSCI EAFE® Index (net)** is a free float-adjusted market capitalization-weighted index that measures developed foreign market equity performance, excluding the U.S. and Canada. The index is calculated on a total return basis with net dividends reinvested. The **Morningstar LSTA US Leveraged Loan 100 Index** is designed to measure the performance of the 100 largest facilities in the U.S. leveraged loan market. The indexes are unmanaged, their returns do not reflect any fees, expenses, or sales charges, and are not available for direct investment.

A Basis Point (bp) is equal to 0.01%. **Collateralized Loan Obligations** are securities backed by a pool of assets often low-rated corporate loans. **Default Rate** is most commonly referred to as the percentage of loans that have been charged off after a prolonged period of missed payments. Defaulted loans are typically written off from an issuer's financial statements and transferred to a collection agency. In some cases, a default rate may also be a higher interest rate charged to a borrower after a specified number of missed payments occur.

Interest Coverage Ratio is a debt ratio and profitability ratio used to determine how easily a company can pay interest on its outstanding debt. **Effective Duration** The change in the value of a fixed income security that will result from a 1% change in interest rates while taking into account the way changes in rates will affect the expected cash flows of any bond with an embedded option such as call or prepayment option. This measure assigns a probability to the exercise of a call option, where applicable, based on specified shifts in the yield curve. Duration is expressed as a number of years, and generally, the larger the duration, the greater the interest rate risk or reward for a portfolio's underlying bond prices. **30-day SEC Yield** is a standardized yield calculated according to a formula set by the SEC, and is subject to change. **30-day SEC Yield (unsubsidized)** is the 30-day SEC yield without the effect of applicable expense waivers. **Standard Deviation** measures variability of returns around the average return for an investment portfolio. Higher standard deviation suggests greater risk.

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