S&P DOW JONES INDICES
McGRAW HILL FINANCIAL

PRACTICE ESSENTIALS®

FIXED INCOME 101

UNDERSTANDING SENIOR LOANS

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S&P Dow Jones Indices' Practice Essentials series is a curriculum based, educational program covering selected financial markets, asset classes and indexing concepts.

Contributor:

Frank Luo
Head of Index Research & Design
frank_luo@spdji.com

Introduction

Predating the development of capital markets, loans are the most basic and common financing instrument. Historically, they were bilateral agreements between a borrower and a lender, typically a lending bank. The terms of the loan were strictly private and the lending bank kept the loan on its books until it matured or the borrower defaulted. Thus, loans were the private domain of banks and were not open to outside investors. That all started to change in the mid-1980s.

The large leveraged buyout (LBO) boom of the era required a new way to finance deals. Syndicated loans, together with high-yield bonds, became the dominant way for issuers to tap banks and other institutional capital providers for loans. Senior loans are made to leveraged borrowers—issuers whose credit ratings are speculative grade and who are paying spreads (premiums above LIBOR or another base rate) sufficient to attract the interest of non-bank term loan investors. Senior loans may offer investors the most potential in the syndicated loan market.

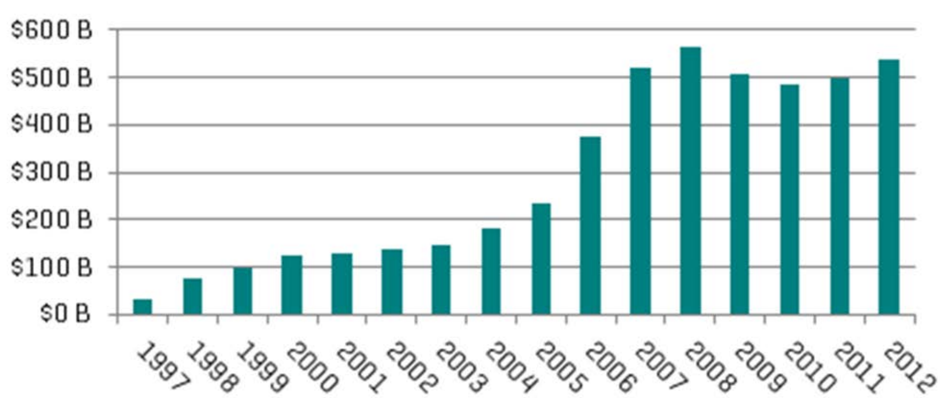
In 2001, together with Loan Syndications and Trading Association (LSTA), S&P Indices launched the S&P/LSTA Leveraged Loan Index (LLI) to serve as a benchmark measurement and a source of information for this asset class. In 2008, to further service the investment community, S&P Indices launched the S&P/LSTA U.S. Leveraged Loan 100 Index (LL100), a daily tradable index that seeks to measure the performance of the 100 largest institutional senior loans drawn from the broader LLI index. The history of the LL100 index goes back to 2002. Unless otherwise specified, the analysis of market returns for senior loans in this paper is based on the LL100 index.

Size of the Market

The amount of senior loans outstanding has grown dramatically over the past 15 years to approximately USD 540 billion as of December 31, 2012 (see Exhibit 1).

The amount of senior loans outstanding has grown dramatically over the past 15 years.

Exhibit 1: Senior Loans: Amount Outstanding (USD Billions)



Source: S&P Leveraged Commentary & Data (LCD). Data as of Dec. 31, 2012. Charts are provided for illustrative purposes.

In the current environment, senior loans have several investment characteristics that may make them appear to be attractive to some investors:

- Senior loans can generate attractive yield.
- Senior loans are floating-rate instruments. In a rising interest rate environment, one would expect loans to hold value while bonds suffer losses.
- Senior loans are generally less volatile than high-yield bonds.
- Senior loans are not strongly correlated with equities or investment-grade bonds, the core holding of typical investment portfolios. Therefore, senior loans may provide an additional level of diversification.

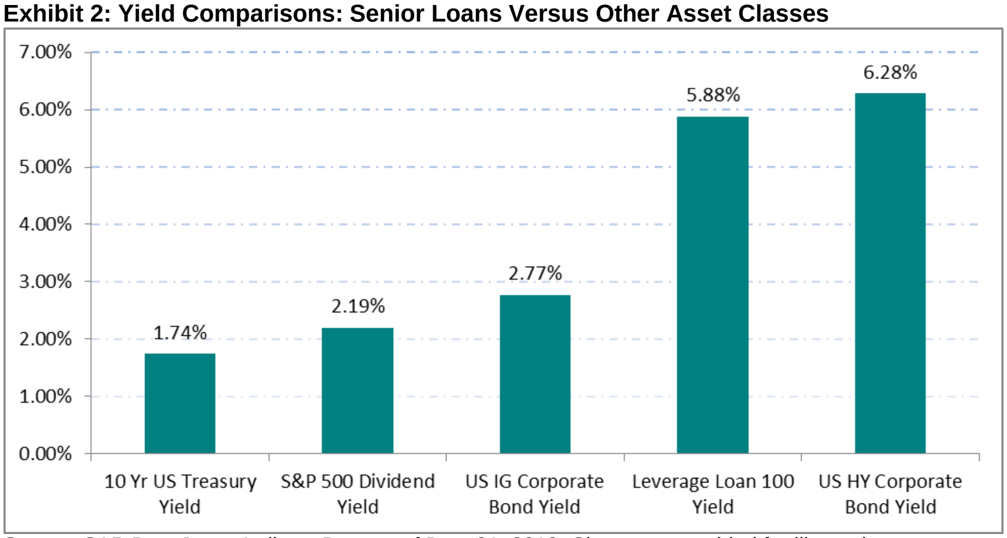
We will explore each of the characteristics in detail.

Income Generation

Senior loans may generate higher yields over stocks and investment-grade bonds.

Exhibit 2 below compares the current yield of the benchmark instruments. Senior loans may generate higher yields over stocks and investment-grade bonds. As expected, the yields are generally less than those of high-yield bonds. However, as discussed further below, senior loans may offer some advantages over high-yield bonds.

Exhibit 2: Yield Comparisons: Senior Loans Versus Other Asset Classes



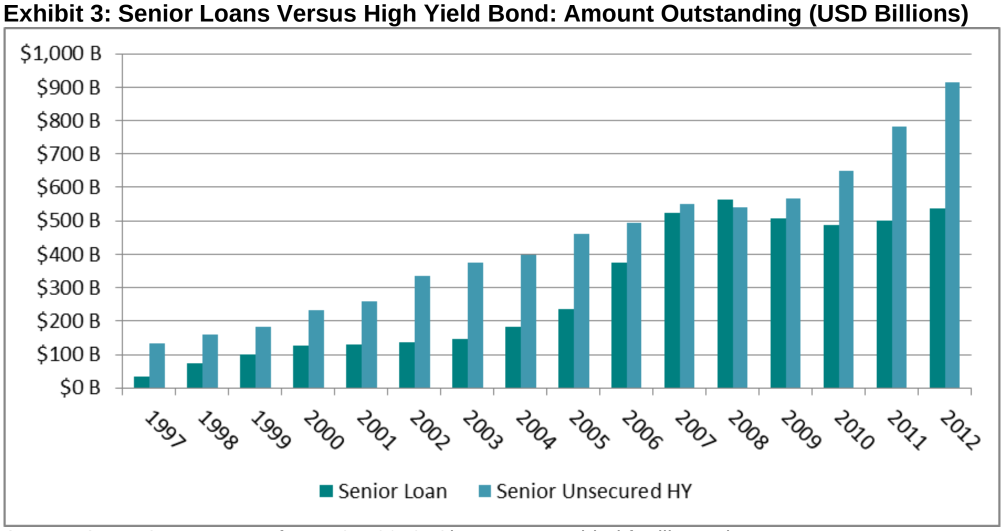
Source: S&P Dow Jones Indices. Data as of Dec. 31, 2012. Charts are provided for illustrative purposes. The Leverage Loan 100 yield is represented by S&P/LSTA U.S. Leveraged Loan 100 index. The US 10yr Treasury, US IG Corporate Bond and US HY Corporate Bond yields are represented by the effective yield of Bank of America Merrill Lynch Indices.

Senior Loans Versus High-Yield Bonds

The size of the senior loan market is comparable to that of the high-yield bond market (see Exhibit 3). However, senior loans are floating-rate instruments, which have coupon resets periodically with the prevailing benchmark for the interest rate. High-yield bonds, on the other hand, are fixed-rate instruments whose values are very sensitive to rising interest rates. The current average effective duration of high-yield bonds, as measured by the Bank of America Merrill Lynch U.S. Corporate High-Yield Bond Index, is 4.28. This means that if the interest rates rise 2.5% from their current levels, the market value of the high-yield bonds could lose 10.7% due to interest moves alone while the floating-rate senior loan would not be affected by the interest rate.

The returns of senior loans are less volatile than those of high-yield bonds.

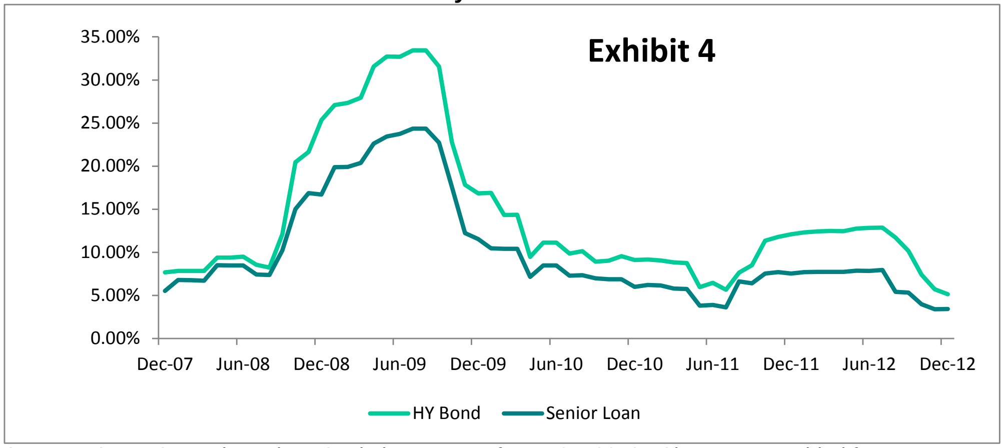
Exhibit 3: Senior Loans Versus High Yield Bond: Amount Outstanding (USD Billions)



Source: S&P LCD. Data as of Dec. 31, 2012. Charts are provided for illustrative purposes.

In addition, the returns for senior loans are less volatile than those of high-yield bonds. Exhibit 4 shows the rolling 12-month annualized volatility of monthly returns for senior loans as compared to those of high-yield bonds. The market returns from the senior loans exhibit consistently lower volatility than those from the high-yield bond market.

Exhibit 4: 12-Month Annualized Volatility



Sources: S&P LCD and Barclays Capital. Data as of Dec. 31, 2012. Charts are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

For a typical investor whose fixed income allocation is predominately in U.S. Treasury bonds, there may also be benefits to diversifying with senior loans.

Correlations of Senior Loans to Other Asset Classes

The five-year correlation to other major assets classes in Exhibit 5 is calculated based on monthly returns for senior loans.

Exhibit 5: Five-Year Correlation Between Senior Loans and Other Asset Classes

	High-Yield Bond	Investment-Grade Bond	S&P 500 TR	Mid-Term Treasury Bond
Senior Loan	90%	31%	67%	-50%

Source: S&P Dow Jones Indices and Barclays Capital as of Dec. 31, 2012. Tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Senior Loans are represented by S&P/LSTA U.S. Leveraged Loan 100 index. The investment-grade bond is represented by the Barclays Capital U.S. Investment-Grade Corporate Bond Index. The high-yield bond is represented by the Barclays Capital U.S. Corporate High-Yield Bond Index. The midterm Treasury bond is represented by the S&P/BGCantor 7-10 Year Treasury Bond index.

As expected, senior loans are highly correlated to high-yield bonds. However, they are negatively correlated with U.S. Treasury bonds. For a typical investor whose fixed income allocation is predominately in U.S. Treasury bonds, there may also be benefits to diversifying with senior loans. As of December 31, 2012, senior loans as measured by the LL100 index had an annualized return of 5.92% for the past five years, compared with a 1.66% annualized return for the S&P 500®.

Risks of Investing in Senior Loans

Investing in senior loans also carries some considerable risks. Senior loans are typically debts of subinvestment-grade companies with high leverage. Loan prices can drop precipitously during a credit crisis, like the one witnessed in 2007 to 2008, when the rapid unwinding of leverage and shut down of the credit market caused the deep sell-off of senior loans. The same situation may happen again. In addition, default on payment is the real and dominant risk associated with senior loans, with or without systematic economic risks. Although senior loans are secured by the assets of the operating company (the terms are superior to those of high-yield bonds, which are generally unsecured), they may still suffer losses when the company defaults.

Accessing the Senior Loan Market

Senior loan ETFs can provide diversified exposures represented by an index, and the abilities to buy and sell close to a fund's net asset value and to enjoy stock-like intraday liquidity.

Access to the loan market can be achieved through the following types of funds:

- **Daily access mutual funds:** These are traditional open-end mutual fund products that allow investors to buy or redeem shares daily at the fund's net asset value.
- **Continuously offered closed-end funds:** These were the first loan mutual fund products. Investors can buy into these funds daily at the fund's net asset value (NAV). Redemptions, however, are made via monthly or quarterly tenders, rather than daily like the open-end funds. To make sure redemptions can be met, many of these funds, as well as daily access funds, set up lines of credit to cover withdrawals above and beyond cash reserves.
- **Exchange-traded closed-end funds:** These are funds that trade on a stock exchange. Typically, the funds are capitalized by an initial public offering. Thereafter, investors can buy and sell shares, but may not redeem them. The manager can also expand the fund via rights offerings. Typically, they are only able to do so when the fund is trading at a premium to its NAV, a provision that is typical of closed-end funds regardless of the asset class.
- **Exchanged-traded funds (ETFs):** In March 2011, Invesco introduced the first index-based exchange-traded fund, PowerShares Senior Loan Portfolio (BKLN), which is based on the S&P/LSTA U.S.Leveraged Loan 100 Index.

Senior loan ETFs can provide diversified exposures represented by an index and the abilities to buy close to NAV, sell close to NAV, and enjoy stock-like intraday liquidity.

Performance Disclosure

The inception date of the S&P/LSTA U.S. Leveraged Loan 100 Index was October 20, 2008, at the market close. All information presented prior to the index inception date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.spindices.com.

The inception date of the S&P/BGCantor U.S. Treasury Bond Indices was March 24, 2010, at the market close. All information presented prior to the index inception date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.spindices.com.

Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. It is not possible to invest directly in an Index.

Another limitation of back-tested hypothetical information is that generally the back-tested calculation is prepared with the benefit of hindsight. Back-tested data reflect the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities (or fixed income, or commodities) markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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