



Secured Bank Loans Another Arrow in the Bond Manager's Quiver

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Over the past few years, senior secured bank loans have come to represent one of the world's fastest-growing capital markets. Between 1996 and 2007, the bank loan market posted a 33% compounded annual growth rate as measured by loan assets outstanding, and as illustrated in Figure 1 below. At nearly \$1.1 trillion, the bank loan market is now larger than the high-yield corporate bond market. Several factors have contributed to this dramatic growth: the spread of syndication among banks made larger by mergers, increased interest and participation by a wide array of non-bank institutional investors, and increased liquidity as a result of standardized disclosure, trading, and settlement practices. More recent contributors to growth include the proliferation of collateralized loan obligations (CLOs) and heightened M&A activity, particularly in the form of leveraged buyouts. The recent sub-prime induced turmoil in the credit markets, far from reducing the attractiveness of bank loans, may actually have created opportunities for savvy investors. This paper summarizes some of the reasons for investing in bank loans, both in the near-term and over the long haul.

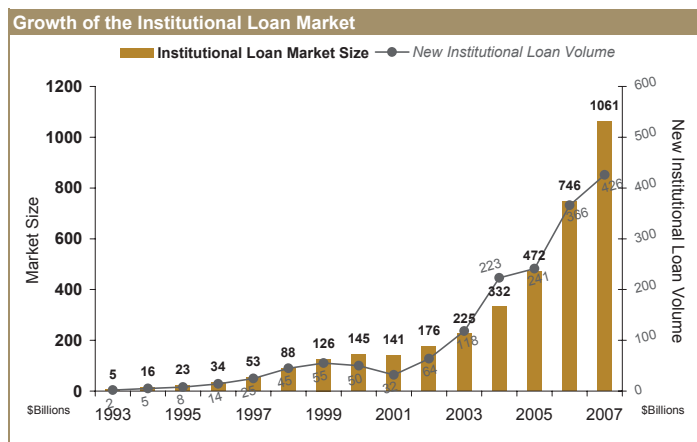


Figure 1 - Source: Credit Suisse, LPC January 2008

Development of the Loan Market

Bank loans represent the extension of credit by banks to corporations. Investment-grade companies take advantage of bank loan facilities primarily through the vehicle of unfunded revolving lines of credit.

These arrangements are generally of little interest to investors because of their unfunded nature and because they pay low interest rates. Of much greater interest are so-called “leveraged loans” – loans made by banks to companies rated below-investment-grade. These arrangements are fully funded and generally pay higher interest rates. Note that the term “leverage” here refers to the amount of debt on a corporate borrower’s balance sheet or in its capital structure, and not to any leverage inherent in the loan itself or in a portfolio containing bank loans.

Traditionally, banks extended loans to their corporate clients and maintained these assets on their balance sheets, generating a return on capital but also risking that capital. To the extent that a bank sought to limit its credit exposure to a particular corporate borrower, the bank would syndicate its loan among other banks. Syndication refers to the practice of parceling out a loan and assigning portions to other lenders/investors. As this practice spread and banks consolidated in the early 1990s, the sizes of bank loan deals grew proportionally. The loan market began making the transition to the capital markets, where it attracted increased interest from institutional investors.

Banks continue to structure and administer their loans, but rather than hold them on their balance sheets, they often act more as “arrangers” for other investors. They now syndicate their loans not just to other banks but to large institutional investors, who become direct lenders in the transaction. Banks usually remain involved in the “pro-rata” debt that consists of revolving lines of credit and in the amortizing term loans (Term Loan A, or TLA). Institutional investors usually invest in Term Loan B (TLB), or C or D, which, as a result, have become known as “institutional” loans.

More Market Participants

Once narrowly held in the portfolios of lending banks, loans are now widely owned and actively traded among a variety of institutional investors. Mutual fund companies were among the earliest non-bank investors, establishing both open- and closed-end funds that invested

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exclusively or largely in bank loans. The best-known of these were the so-called “prime rate funds.” High-yield-bond mutual funds have also invested in bank loans for several years. More recent participants include hedge funds, insurance companies, and pension funds; and their market shares continue to grow. The newest and most recent market participant has been collateralized loan obligations, or CLOs. These investors construct portfolios of loans, then issue various tranches of debt to meet investor preference by spread and quality rating. Tranches are purchased by a variety of individual and institutional investors, further broadening ownership of bank loans. As a result, the banks that formerly dominated the loan market now account for only about 20% of holdings.

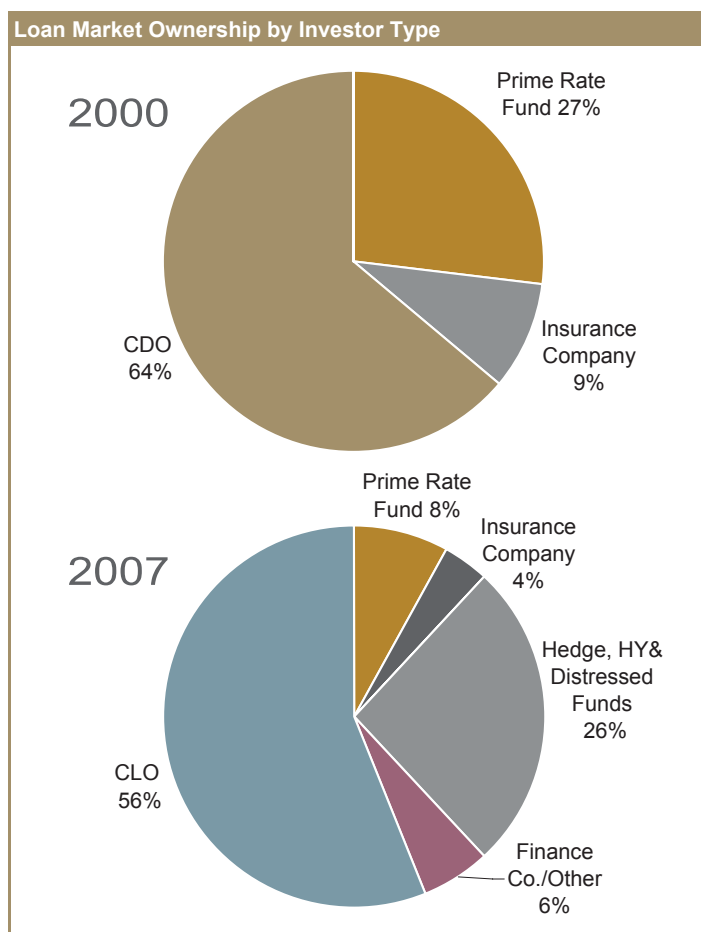


Figure 2 - Source: S&P LCD January 2008

Increased Trading and Liquidity

After their initial syndication, loans are traded by dealers in the secondary market much like traditional bonds. Secondary trading

began during the 1990s and facilitated the dramatic growth of the loan market, largely by relieving banks of issuer concentration problems and freeing up their capital so that they could make new loans to still additional borrowers. An industry trade group, the Loan Syndications and Trading Association (LSTA), contributed substantially to market growth and liquidity by establishing trading guidelines and by standardizing settlement practices and loan documents like covenants. The result has been increased participation by dealers, increased interest by investors, and a fairly liquid capital market. Although there remain differences between trading loans and trading bonds (settlement periods for loans are longer, at T+7 days), these differences are minor and easily addressed by the trading desks at both “buy-side” and “sell-side” firms.

Further deepening the bank loan market has been the development of credit derivatives that enable investors to express negative as well as positive views on both individual names and the loan market as a whole. For nearly a decade now, the corporate bond market has had CDS, single-name credit default swaps, and CDX, index-linked swaps. In 2006, the bank loan market saw the introduction of similar single-name swaps, called LCDS, and in May of 2007, the creation of a leveraged loan swaps index, the LCDX. These innovations allow investors to express two-way credit views at the most senior level of the capital structure. In so doing, they increase investor flexibility, facilitate the market's functioning, and increase its depth, breadth, and efficiency.

Attractive Investment Features

Certain structural characteristics make bank loans attractive to institutional investors. A key feature is their seniority in the capital structure, ahead of unsecured bonds and other creditors. In addition, loans are secured by a first security interest in the assets of the borrower. The diagram in Figure 3 depicts the typical capital structure of companies that offer bank loans. It also suggests the relative safety of bank loans compared to other security types from the same issuer – securities that investors purchase regularly despite their increased risks relative to loans.

This combination of seniority and the pledge of assets generally results in higher recovery rates in the event of default than for securities further down in the capital structure. According to Moody's, bank loan recovery rates averaged 71% between 1990 and 2006, a span that includes two US recessions, while holders of

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senior unsecured bonds recovered an average of only 44% of their investment during the same period. Loan covenants are usually more restrictive than the covenants for bonds issued by the same company, affording investors still additional protections. Bank loans are priced at a spread over LIBOR ranging generally from L+125 to L+400. Finally, their floating rate feature makes them a low duration asset and provides protection against rising interest rates.

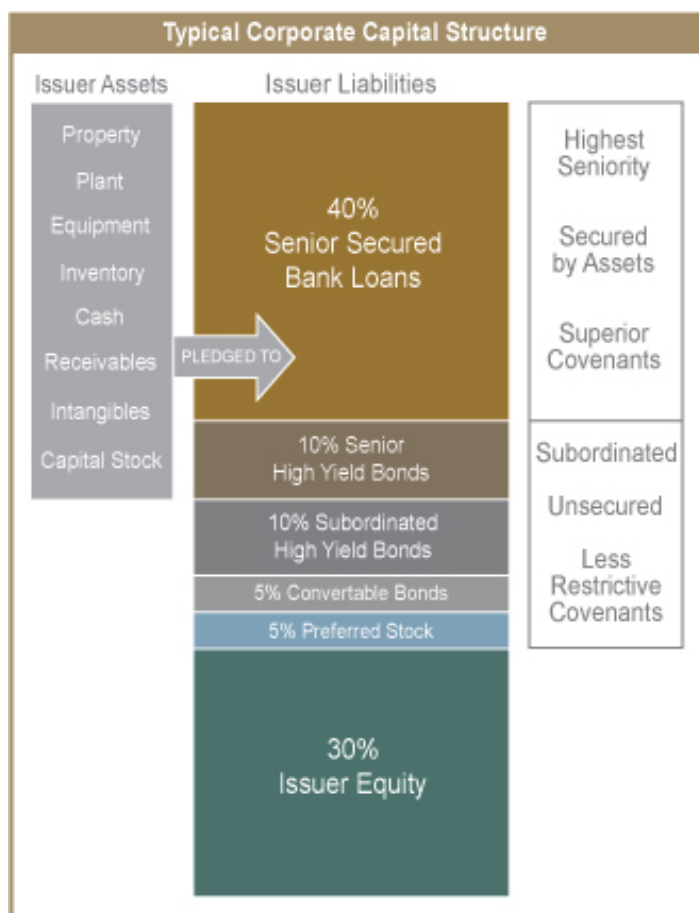


Figure 3 - Source: Standish

This combination of features – seniority, security, high recovery values, and floating-rate coupons – makes the prices of bank loans more stable than those of traditional bonds. Third-party pricing services “mark to market” loans just as they do bonds. While some bank loans offer call protection going out one to three years, at prices ranging from \$101 to \$103, most loans are callable at any time and at par. This call option creates negative convexity, which limits the upside price potential of loans to a degree not seen in high yield bonds that offer investors call protection. At the same time, the

downside price risk for loans is much lower than for bonds, as high recovery rates supported by asset values tend to put a floor under prices, even in the event of default. As a result, bank loans tend to exhibit very low price or principal volatility over time.

Superior Risk-Adjusted Returns

Stable principal values, made so by floating-rate coupons and a senior claim on assets, result in bank loans exhibiting greater investment efficiency, or a higher return-per-unit-of-risk, than most other asset classes. Figure 4 below lists the annual returns and volatilities (standard deviations) of several major asset classes, as well as the ranges of their returns over the prior sixteen years. Note that banks loans have never suffered a negative return year, and also that they have enjoyed both a narrow range of returns and a low standard deviation of those returns. The most generally accepted measure of an investment's efficiency is, of course, its Sharpe Ratio, which scales its average annual return by the average annual volatility of that return. At 2.58 for the period 1992 to 2007, banks loans exhibit by far the highest Sharpe Ratio, the highest return-per-unit-of-risk, of all asset classes listed below.

Risk/Reward of Various Asset Classes: 1992 - 2007					
Asset	Annual Return	Annual Volatility	Sharpe Ratio	Highest Annual Return	Lowest Annual Return
US Intermediate Gov't	6.18%	4.77%	1.29	16.80%	-5.14%
US Long Term Gov't	8.32%	9.53%	0.87	31.67%	-8.96%
Merril Lynch Mortgage	6.51%	3.08%	2.12	16.99%	-1.56%
Merril Lynch Corp Bonds	7.04%	4.89%	1.44	21.23%	-3.34%
LB Aggregate Bond	6.53%	3.94%	1.66	18.48%	-2.92%
S&P 500	10.31%	14.69%	0.70	37.43%	-22.10%
JPM Emerging Markets	15.27%	16.16%	0.95	48.99%	-25.69%
CSFB High Yield Index	8.65%	6.32%	1.37	27.94%	-5.66%
CSFB Leveraged Loan Index	6.41%	2.48%	2.58	11.17%	1.12%

Figure 4 - Source: Credit Suisse, Ibbotson Associates, Bloomberg

Diversification Benefits

Another attractive feature of bank loans is the low or negative correlations of their returns with the returns of other fixed income sectors and security types. Their economic sensitivity and floating-rate structures enable bank loans to perform well when economic growth is strong and interest rates are rising – the opposite of fixed-rate bonds like Treasuries, with which loans enjoy understandably negative correlations. These same features, plus their seniority in the capital structure, enable bank loans to outperform more credit-sensitive sectors as the economy weakens. This particular behavioral trait

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makes bank loans ideal for taking more defensive portfolio positions by moving up in the capital structure at times when the economy is expected to slow. Ideal diversifiers in bond portfolios, bank loans are an excellent tool that can be used either strategically or tactically in the management of portfolios permitting the use of below-investment-grade credit.

Correlations with Other Asset Classes: 1992 - 2007	
US 30-Day Tbill	-0.04
US Intermediate Government	-0.24
US Long Term Government	-0.05
Merrill Lynch Mortgage	-0.16
Merrill Lynch ABS	-0.12
Merrill Lynch Corp Bonds	0.09
LB Aggregate Bond	-0.10
S&P 500	0.57
JPM Emerging Markets	0.19
Gold	-0.23
US Inflation	-0.23
Credit Suisse HY Index	0.58

Figure 5 - Source: Credit Suisse, Ibboston Associates

Manageable Risks

The chief risks associated with bank loans are reinvestment risk, default risk, and recovery risk. As noted, the floating-rate feature of loans provides protection against the principal form of interest rate risk – the risk that prices fall as market rates rise. At the same time, their embedded call feature exposes loan investors to a second form of interest rate risk under conditions of falling rates. Because loans can be called away for a variety of reasons, investors may have difficulty finding a replacement investment that pays them a similar yield. This is called reinvestment risk, a milder form of interest rate risk that is easily anticipated and generally reflected only in a gradual decline in loan market yields.

Default risk is the risk that the borrowing company either fails to pay interest and/or principal when due, files for bankruptcy, or violates a covenant. This last condition is known as technical default. The probability of default inheres at the company level and is the same for all parts of its capital structure. Since bank loans are both senior in this structure and secured by company assets, the real risk for loan investors is not simply default but recovery risk – that is, the risk that the collateral securing the loan is insufficient to satisfy the obligation in full. A more comprehensive assessment of risk, therefore, considers both the likelihood of default and the extent of any resulting loss.

This is called LGD, or loss given default, which is a measure of the ultimate downside risk faced by investors in bank loans. Determining an LGD for each borrower and loan structure is obviously critical for deciding which bank loans to include in a portfolio. Loans deemed adequately secured often continue to accrue interest and trade at par, even after a default and bankruptcy filing.

The Standish credit research team applies a similar framework in its assessment of both leveraged bank loans and high yield corporate bonds. Analysts seek to understand not only the company's business and capabilities of its management, but also its capital structure and financial performance, the various protections afforded lenders, the LGD and its inverse, the residual or recovery values in the event of default. These latter analyses take slightly different forms for bank loans than for bonds, given different documentation and covenants, and given the need to assess collateral in the case of loans. Each analyst assigns a credit rating and a trend to each company and compares his or her findings to similar statistics provided by the rating agencies. (The agencies began rating leveraged bank loans in 1995 and use the same lettering systems as for bonds.) Finally, Standish analysts apply relative value analysis up and down the entire capital structure of each company they follow, in order to select the most attractive securities based on both valuation and risk. Standish may employ LCDS opportunistically to express an analyst's negative credit opinion and/or to buy protection on an individual credit.

Near-Term Investment Opportunity

The 2007 sub-prime crisis caused a protracted sell-off across the credit markets, including the market for bank loans to corporations, which should have been relatively unaffected by the creditworthiness of individual borrowers or declines in residential real estate values. This is not to say, however, that the loan market was entirely exempt from the declining lending standards that precipitated the sub-prime mortgage crisis. Years of strong credit markets, low borrowing costs, and declining default rates had led to both looser bank lending terms and narrower spreads. A year ago, LBO sponsors in particular were able to negotiate very favorable terms; and so-called "covenant-light" loans came to comprise nearly 20% of the loan market, which also saw an increase in riskier second-lien loans, PIK toggle structures, and delayed draw facilities. Borrower demand for these riskier structures was met with equally strong demand from investors, and, by mid-

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summer, loan spreads had narrowed, and prices had risen, to the point that this market had lost much of its earlier attractiveness. The sub-prime sell-off appears to have rectified this situation, and even to have created near-term opportunities for value investors.



Figure 6 - Source: Credit Suisse Institutional Index 1/18/07

Loan prices in the CSFB leveraged loan index have fallen by an average of more than five full points, an unusual drop for an historically price-stable asset class. Five points, however, is an average, around which there was, and still is, considerable dispersion. Not all loan prices fell equally, nor do all fallen loans represent equal value. It is the job of the Standish credit research team to ferret out the real values, to distinguish between loans whose prices have fallen for fundamental reasons like a poor business model or weak covenants – from loans whose prices have been dragged down for largely market and technical reasons and can therefore be expected to recover.

Market dislocations almost always create value and opportunity – even if only on a selective basis.

Summary

Near-term opportunity or not (and only time will tell), senior secured bank loans have grown into a mature market sector, indeed a tenured asset class, that should probably be included in the opportunity set of all portfolios allowing investment in below-investment-grade bonds. Bank loans, in other words, should be another arrow in the bond manager's quiver. Even if prices fail to recover quickly from the recent sell-off, bank loans still offer managers the ability to upgrade the credit portions of portfolios, and to move up the capital structure into more defensive positions – both important avenues at a time when the US economy appears to be slowing. On a stand-alone basis, and independent of the economic cycle, senior secured bank loans offer ample liquidity, manageable risks, and the steady income streams and generally stable principal values that result in superior risk-adjusted returns. Equally important, their low correlations with virtually all other fixed income sectors make bank loans ideal diversifiers in portfolios that allow the use of below-investment-grade credit. Core-plus portfolios in particular, but high-yield portfolios as well, stand to benefit considerably from the ability to invest a portion of their assets in senior secured bank loans.



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