

## Investment Opportunities in Senior Bank Loans – August 2007

Risks of all types have been repriced over the last few weeks. Except for subprime mortgages, nowhere has this been more significant than in the senior bank loan market. Dubbed “par loans” since they rarely trade much above or below par, this roughly \$500 billion institutional market is being up-ended by the realization that investment banks and the securities divisions of major money center banks will shortly be trying to unload another \$250 billion or more in new LBO generated bank loans in an environment where the traditional buyers for 70% of all bank loans – structured finance vehicles called CLOs – have suddenly disappeared due to a lack of investor interest.

The investment opportunity in bank loans is the result of a private equity deal bonanza that created record breaking amounts of debt and newly weakened lending institutions of all types, collateral damage (no pun intended) from the subprime mess. One anticipated result is that banks will be motivated to sell at a discount the “hung loans” that they were expecting to place into CLOs.

Importantly, what separates subprime and bank loans from an investment perspective are the strong fundamentals found in bank loans. Default rates for bank loans are at historical lows and recovery rates, if default occurs, are at their highs. Subprime loans, on the other hand, are facing high and growing defaults and uncertain recoveries. This difference is why most investors view bank loans as an investment opportunity driven by “technical” factors of supply (high) and demand (low), causing temporarily depressed pricing.

### *Expected Return*

Exhibit 1 provides expected returns for a bank loan portfolio under three scenarios: unlevered, one times levered (1x), and two times levered (2x). Bank loans pay floating interest equal to LIBOR, currently around 5.50%, plus a fixed spread. The fixed spread added to LIBOR for the bank debt that will soon be sold is anticipated to be 2.75%. In addition, based upon recent pricing, the bank loans will likely be sold at a significant discount to par value. The level of price discount is uncertain but estimates range from \$88 to \$95. In Exhibit 1 we assume an average loan price of \$95, at the high end of the range, or a 5% discount from par. If we amortize the 5% discount over four years, our effective maturity assumption for the bank loans, that adds another 1.25% annually to the 2.75% fixed spread, for a total spread over LIBOR of 4.00% per year.<sup>1</sup> That yields a total expected return on an unleveraged bank loan portfolio equal to 9.50%.

Many traditional investors in bank loan assets use leverage to enhance return. For example, the typical CLO structure uses leverage ratios between 8 and 10:1.<sup>2</sup> Hedge funds that invest in bank loans use lower leverage levels, anywhere between 2 and 4:1 depending upon the credit environment and the credit quality of the bank loans. Leverage is used principally because bank loans are very low risk due to their floating rate character and low duration. The annualized standard deviation of return for the S&P/LSTA Leveraged Loan Index equals 2.14% through July, and is well below the 3.52% standard deviation for the Lehman Aggregate Bond Index and

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<sup>1</sup> Stated maturities for bank loans generally average seven years but most are called early for refinancing or as part of a restructuring. We believe our shorter four year “effective” maturity assumption is in the midrange of similar assumptions used by investors.

<sup>2</sup> A 9:1 leverage ratio means 9 turns of leverage, or that 90% of assets are financed through borrowing.

less than one-third of the 7.28% standard deviation for the Lehman High Yield Bond Index.<sup>3</sup> The Lehman High Yield Bond Index is perhaps the more relevant benchmark because most institutionally purchased bank loans are non-investment grade and are generally referred to “leveraged loans.” The term leverage comes from their association with leveraged buyouts.<sup>4</sup>

A high single digit expected return might not appear all that attractive to opportunistic investors, but on a risk-adjusted basis a 9.50% return at a 2.14% risk would be without peer among traditional asset classes.

**Exhibit 1: Calculation of Expected Return on Bank Loans**

(gross of fees and losses from defaults)

Unleveraged Bank Loan Expected Return:

	LIBOR	5.50%
<i>plus</i>	Gross bank loan spread	<u>4.00%</u>
<i>equals</i>	Unleveraged expected return	9.50%

One Times Levered Expected Return:

<i>plus</i>	Bank loan return	9.50%
<i>minus</i>	Financing cost	<u>6.25%</u>
<i>equals</i>	1:1 Levered expected return	12.75%

Two Times Levered Expected Return:

<i>plus</i>	Bank loan return	9.50%
<i>minus</i>	Financing cost	<u>6.25%</u>
<i>equals</i>	2:1 Levered expected return	16.00%

Assumptions:

LIBOR equals 5.50%.

Bank loan spread, including coupon and price discount, equals 4.00%.

Financing rate to purchase loans equals LIBOR plus 0.75%.

Current bank loan investment offerings use or expect to use portfolio leverage between 0 and 3:1, depending upon market conditions. In Exhibit 1 we show the impact of leverage ratios equal to 1:1 (one times levered) and 2:1 (two times levered) on expected return. At one times levered, bank loans equal to twice the value of the investment are purchased. Half of the bank loans can be viewed as unlevered, earning 9.50%. The other half is financed at a cost equal to 6.25%, or LIBOR plus 0.75%, the current borrowing rate. The total expected return at 1:1 levered equals 12.75%: 9.50% for the unlevered loans, plus 9.50% for the loans that are financed, and minus 6.25% for financing costs.

<sup>3</sup> The standard deviation calculation for all three indexes covers the period January 1, 1997, the start date for the S&P/LSTA Leveraged Loan Index, through July 31, 2007. This period includes the turbulent years 2001 and 2002 when default rates were at record high levels.

<sup>4</sup> We use the terms bank loans and leveraged loans interchangeably to mean non-investment grade, floating rate bank term loans. Credit ratings for bank loans are roughly equally split between “BB” and “B”, somewhat higher than for high yield bonds.

At two times levered, bank loans equal to three times the value of the investment are purchased. The expected return increases another 3.25%, the difference between the bank loan return and the financing cost, from 12.75% to 16.00%.

### *Risks*

The modest 2.14% risk for bank loans increases as leverage is used. We estimate the standard deviation to equal 3.88% for a 1:1 levered investment and 5.98% for a 2:1 levered investment.<sup>5</sup>

As previously mentioned, high yield bonds provide a good comparison for bank loans. High yield bonds currently have a yield-to-maturity of 9.05% and a 7.28% standard deviation. The two times levered expected return for bank loans is a much higher 16.00% at a lower 5.98% estimated standard deviation. Furthermore, many investors are attracted to the floating rate nature of bank loans given the low level of interest rates.

Like high yield bonds, much of the risk in bank loan returns reflects uncertainty in default rates and recoveries, once default has occurred. The lower risk for bank loans is in part attributable to their lower historical default rates and higher recovery rates. In 2006, for example, the bank loan default rate was 0.6% versus 1.6% for high yield bonds. Recovery rates were higher for bank loans as well, 80% versus 58% for high yield bonds.<sup>6</sup> Historically, bank loans have had lower default rates and higher recovery rates due to their higher seniority in the capital structure. A conservative assumption might be a 2% default rate forecast for bank loans, a 70% recovery rate, and a 0.60% annual loss rate on unlevered bank loans.<sup>7</sup> Expected returns net of assumptions for default losses are 8.90%, 11.55%, and 14.20% for unlevered, 1:1, and 2:1 levered bank loan strategies, respectively. Of course, active management should lower default losses and many advisors have a strong record of doing so.

### *Management Fees and Asset Class Assignment*

The returns in Exhibit 1 do not include management fees. Management fees vary, may include incentive fees, and should be evaluated on a case by case basis. One would expect that management expertise would add value by purchasing bank loans with better value and lower default probability.

### *Asset Class Assignment*

Fixed income, high yield, private equity, and hedge funds are all asset classes that could be considered as a place to put a bank loan investment. Bank loans are non-investment grade fixed income and therefore can logically be allocated to existing fixed income or high yield allocations. However, bank loan strategies that are leveraged more than 1:1 would probably have a risk profile that is closer to high yield. The investment strategy employed by the manager should be considered as well. For example, a bank loan portfolio that includes lower quality second lien bank loans would belong in high yield whereas a senior secured bank loan portfolio would have a risk profile more like traditional fixed income.

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<sup>5</sup> In calculating risk for the levered strategies we assume a 1.00% risk level for financing costs and a 0.50 correlation between bank loan returns and financing costs.

<sup>6</sup> Moody's Investor Service: "Syndicated Bank Loans: 2006 Default Review and 2007 Outlook."

<sup>7</sup> The loss rate equals the default rate multiplied by one minus the recovery rate.

Several of the new opportunistic bank loan strategies have been structured like private equity partnerships. The investor makes a dollar commitment which is gradually drawn as investments are made, generally over a 12 month period, followed by distributions as investments are sold, refinanced, or mature. In this type of structure, liquidity characteristics are more akin to private equity and since leverage is typically used, expected returns are closer to private equity as well.

Finally, there are many hedge funds that offer opportunistic investments in bank loans. These use varying degrees of leverage depending upon the types of investments purchased and market conditions. These hedge funds could belong within an absolute return allocation.

Bank loan investment offerings combine characteristics of many asset classes and therefore can potentially be placed within several asset classes.

### *Conclusion*

Market turmoil creates opportunity as well as distress. Today, the non-investment grade bank loan (or “leveraged loan”) market fits this characterization. Large investment banks are anxious sellers, weakened by subprime losses and facing the prospect of further burdening their balance sheets with bank loan commitments totaling \$250 to \$400 billion. A handful of advisors are raising capital to exploit this opportunity either through existing funds or by creating new vehicles. Cliffwater believes that several of these offerings potentially offer very strong risk-adjusted returns and recommends that clients give them serious consideration.

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