The role of floating-rate bank loans in institutional portfolios

Bank loans are among the few fixed income sub-asset classes [others: cash and Treasury Inflation Protected Securities (TIPS)] to offer the potential for protection and positive returns in a rising interest rate environment, due to their floating rate characteristics. Historically, default rates for bank loans have been higher than those of high-quality corporate bonds but lower than those of high-yield bonds, and their recovery rates have tended to be stronger than those of high-yield bonds. We expect that bank loans will, on average, lie between aggregate bonds and high-yield bonds on the risk/return spectrum going forward – and that the extent to which they offer results more attractive than those delivered by other fixed income investments will be driven mostly by the LIBOR floor level (below which returns would not improve in a rising rate environment); by how far above that floor interest rates will rise.

What are bank loans?

Bank loans, also known as “senior loans” or “leveraged loans,” are typically below-investment-grade loan obligations issued by public and private corporations. Because bank loans are, technically, not securities, the SEC does not govern how they are traded in the market. Instead, there is the self-regulated entity called Loan Syndications and Trading Association (LSTA). The LSTA is a body of loan market participants (from both the buy side and the sell side) that includes all large bank loan players and many smaller players as well. The fact that bank loans are not securities – that they are, rather, contracts – has great implications for the settlement process, in effect making it more cumbersome than that with traditional fixed income bonds.
Other general features of bank loans:

- Their coupons are floating rate. With 0.25-year duration, bank loans have little to no interest rate risk, since coupons are typically reset every three months.

- They have seniority in a capital structure vis-à-vis other fixed income obligations, and they are often secured. This seniority has resulted in bank loans’ having much lower default rates and higher recovery rates than those of high-yield bonds (see Exhibits 3 & 4).

- They typically have detailed “maintenance” and “incurrence” covenants. In general, bank loans have more restrictive covenants than high-yield bonds do, and while there was a tendency, prior to the 2008–2009 financial crisis, toward so-called “covenant-lite” deals, such easing has dried up as lenders have grown reluctant to lend to all but the strongest counterparties.

- They are callable at par at any time. Upward price appreciation is limited due to this callability. Thus, leveraged loan price volatility is typically very low: downside risk is dampened by bank loans’ seniority relative to bonds, and the upside is capped, since loans are callable at any time. Today, most new loan issuances involve a call premium when a loan is prepaid within a year.

**Risk and return characteristics of bank loans**

The main components of a bank loan return stream will depend on (among other things):

- LIBOR floor levels
- Credit spreads (which reflect price appreciation/depreciation)
- Default rates, and
- Recovery rates

The LIBOR is the London Interbank Offered Rate, which is used as a reference rate in loan transactions between banks. The LIBOR floor, introduced in recent years to help enhance bank loan yields in extremely low interest rate environments, is around 1%–2% (note that until LIBOR reaches the “floor” level, bank loan returns do not increase with rising rates). The credit spread is the market-determined spread paid to the investor for taking on the credit risk (historically the normal range has been 3%–8%, depending on the riskiness of a loan). The credit spread reflects market price movements. The default rate is the default rate of a bank loan portfolio (historically, 2%–3%), and the recovery rate is the amount of principal recovered in the event of default (historically, 60%–70%).

The historic return profile of the Credit Suisse Leveraged Loan Index changed dramatically following the 2008 financial crisis. Pre-crisis, returns were relatively stable and characterized by low volatility. By the end of 2008, volatility had spiked dramatically. However, it is important to note that the volatility experienced in mid 2008 to early 2009 was due largely to a technology-driven sell-off, caused by excessive new issuances and forced selling from leveraged vehicles with market-value triggers. Those factors, particularly with leveraged vehicles, have greatly diminished since then. At the same time, the market participants have evolved considerably in the last several years. Therefore, different technical factors are introduced, such as mutual fund flows, in the bank loan market today. Exhibit 1 shows monthly historic returns of the index.

1 The widely used index “…designed to mirror the investable universe of the U.S. dollar denominated leveraged loan market.” https://www.credit-suisse.com.
Exhibit 1 / Historic monthly returns (%) of the Credit Suisse Leveraged Loan Index (as of November 30, 2011)

Shaded areas indicate U.S. recessions (Mar 01–Nov 01 and Dec 07–Jun 09)
Sources: Credit Suisse, Bloomberg, National Bureau of Economic Research
Indexes are unmanaged and cannot be invested in directly. Past performance is not indicative of future results.

Historical data suggests that bank loans offer low correlations with other fixed income asset classes, but that as diversifiers they are not as strong as the Barclays Capital U.S. Aggregate Bond Index relative to equity-linked asset classes (see Exhibit 2a). Furthermore, the return and standard deviation figures for bank loans move more closely with those for high-yield bonds. These results make sense: bank loans are below-investment-grade instruments, and Barclays Capital U.S. Aggregate Bond Index constituents are investment-grade bonds.

Bank loans’ low correlations with most fixed income indexes should not come as a huge surprise. The duration of the Credit Suisse Leveraged Loan Index is significantly lower than durations in the traditional fixed income asset classes, reflecting the prevalence of floating rate instruments in the loans universe and hence minimal price sensitivity to interest rate changes. Going forward, and particularly in potentially rising interest rate scenarios, this characteristic would provide bank loans with a tailwind not experienced by most other fixed income instruments. In particular, bank loans have exhibited persistently low and sometimes negative correlations with Treasury exposures (see Exhibit 2b).
## Exhibit 2a/ Correlation of leveraged loans with other asset classes January 2000 – November 2011

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Suisse Leveraged Loan Index</td>
<td>1</td>
<td>-0.09</td>
<td>-0.40</td>
<td>-0.06</td>
<td>0.76</td>
<td>0.38</td>
<td>0.15</td>
<td>0.35</td>
<td>0.50</td>
<td>0.55</td>
</tr>
<tr>
<td>Citigroup 3-month T-bill</td>
<td>-0.09</td>
<td>1</td>
<td>0.02</td>
<td>0.06</td>
<td>-0.11</td>
<td>-0.05</td>
<td>0.01</td>
<td>0.08</td>
<td>-0.06</td>
<td>-0.06</td>
</tr>
<tr>
<td>Citigroup Treasury Note -10 Year</td>
<td>-0.40</td>
<td>0.02</td>
<td>1</td>
<td>0.88</td>
<td>-0.14</td>
<td>0.22</td>
<td>0.65</td>
<td>-0.26</td>
<td>-0.31</td>
<td>-0.30</td>
</tr>
<tr>
<td>Barclays Capital U.S. Aggregate</td>
<td>-0.06</td>
<td>0.06</td>
<td>0.88</td>
<td>1</td>
<td>0.24</td>
<td>0.48</td>
<td>0.77</td>
<td>-0.20</td>
<td>-0.07</td>
<td>-0.02</td>
</tr>
<tr>
<td>Barclays Capital U.S. Corporate</td>
<td>0.76</td>
<td>-0.11</td>
<td>-0.14</td>
<td>0.24</td>
<td>1</td>
<td>0.68</td>
<td>0.33</td>
<td>0.10</td>
<td>0.59</td>
<td>0.64</td>
</tr>
<tr>
<td>JP Morgan EMBI Plus</td>
<td>0.38</td>
<td>-0.05</td>
<td>0.22</td>
<td>0.48</td>
<td>0.68</td>
<td>1</td>
<td>0.46</td>
<td>0.02</td>
<td>0.53</td>
<td>0.58</td>
</tr>
<tr>
<td>Barclays Capital Treasury TIPS</td>
<td>0.15</td>
<td>0.01</td>
<td>0.65</td>
<td>0.77</td>
<td>0.33</td>
<td>0.46</td>
<td>1</td>
<td>0.10</td>
<td>0.05</td>
<td>0.10</td>
</tr>
<tr>
<td>U.S Consumer Price Index</td>
<td>0.35</td>
<td>0.08</td>
<td>-0.26</td>
<td>-0.20</td>
<td>0.10</td>
<td>0.02</td>
<td>0.10</td>
<td>1</td>
<td>0.05</td>
<td>0.06</td>
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<tr>
<td>Russell 1000® Index</td>
<td>0.50</td>
<td>-0.06</td>
<td>-0.31</td>
<td>-0.07</td>
<td>0.59</td>
<td>0.53</td>
<td>0.05</td>
<td>0.05</td>
<td>1</td>
<td>0.96</td>
</tr>
<tr>
<td>Russell Global Index</td>
<td>0.55</td>
<td>-0.06</td>
<td>-0.30</td>
<td>-0.02</td>
<td>0.64</td>
<td>0.58</td>
<td>0.10</td>
<td>0.06</td>
<td>0.96</td>
<td>1</td>
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Indexes are unmanaged and cannot be invested in directly. Past performance is not indicative of future results.
Since the coupons for bank loans are reset on a quarterly basis, loan duration is typically around 0.25 year; thus, there is minimal interest rate risk associated with the asset class. However, bank loans are offering an attractive yield level, especially when compared to investment-grade bonds (Exhibit 2c).

Sources: Credit Suisse, Barclays Capital, Citigroup, Bloomberg, U.S. Department of the Treasury
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Sources: Merrill Lynch, Barclays Capital, JPMorgan, S&P, Bloomberg
*Current yield as opposed to yield to worst for the other asset classes listed on the chart
Indexes are unmanaged and cannot be invested in directly. Data is historical and is not indicative of future results.
Given their seniority, bank loan default rates have on average been historically lower than those of high-yield bonds (Exhibit 3).

Exhibit 3 / Bank loan vs. high-yield bond default rates

![Graph showing default rates of bank loans vs. high-yield bonds over time.](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>Leveraged Loans</th>
<th>High Yield Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>3.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>1999</td>
<td>2.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>2000</td>
<td>2.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>2001</td>
<td>1.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td>2002</td>
<td>1.0%</td>
<td>11.0%</td>
</tr>
<tr>
<td>2003</td>
<td>0.5%</td>
<td>10.5%</td>
</tr>
<tr>
<td>2004</td>
<td>0.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>2005</td>
<td>0.5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>2006</td>
<td>1.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>2007</td>
<td>1.5%</td>
<td>8.5%</td>
</tr>
<tr>
<td>2008</td>
<td>2.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>2009</td>
<td>2.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>2010</td>
<td>3.0%</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

Sources: J.P. Morgan, S&P, S&P/LSTA

Data is historical and is not indicative of future results.

Bank loans have experienced higher recovery rates than high-yield bonds during all rate regimes (Exhibit 4), also due to their seniority in the capital structure.

Exhibit 4 / Recovery rates of bank loans vs. high-yield bonds

![Graph showing recovery rates of bank loans vs. high-yield bonds over time.](image)

1992–2009 recovery rates from Credit Suisse Leveraged Loan Index; 2010 from Moody’s

Sources: Credit Suisse, Moody’s, Ridgeworth Capital

Data is historical and is not indicative of future results.
Bank loans in rising interest rate environments

In the past 20 years (since 1992), there have been three periods of significant rate increases, as identified by rising 3-month Treasury yields and a rising federal funds rate. During these periods, 10-year rates also caught up with the short-term rates and had similar trends, albeit with less fluctuation.

Exhibit 5 / Month-end 3-month and 10-year Treasury yield curve rates and effective federal funds rate (%) (January 1992–November 2011)

![Graph](image)

Grey-shaded areas indicate U.S. recessions (Mar 01–Nov 01 and Dec 07–Jun 09), and blue-shaded areas indicate rising rate periods (Sep 92–Jan 95; Oct 98–Oct 00; and Jan 04–Feb 07)

Sources: National Bureau of Economic Research, Federal Reserve Bank of St. Louis and U.S. Department of the Treasury

Data is historical and is not indicative of future results.

In these rising interest rate environments, bank loans have yielded positive returns and outperformed most fixed income assets (Exhibit 6).

Exhibit 6 / Performance (%) of bank loans in rising rate environment – cumulative returns for three rising rate periods

![Bar Chart](image)

Sources: Credit Suisse, Barclays Capital, Citigroup and Bloomberg

Indexes are unmanaged and cannot be invested in directly. Past performance is not indicative of future results.
Current market conditions for bank loans
Since the latter half of 2008, both short-term and long-term Treasury rates and the effective federal fund rate are at historic lows (Exhibit 5). Should a broad-based economic recovery take shape, interest rates would be expected to go up at some point. Elevated inflationary expectations would also cause interest rates to rise. Both of these effects would positively affect bank loan returns.

Current pricing levels for bank loans do not appear as attractive as they were at the end of 2008, but have gone back to the much lower end of historical average prices, which ranged between $0.98 and $1.02 per dollar pre–2008 financial crisis. Default rates remain relatively low, and volatility is also back toward normal levels.

Overall, Russell strategists concur that the balance of probabilities does lean marginally toward a rising interest rate environment. But the degree to which bank loans would offer more attractive results than other fixed income investments will be driven mostly by how far interest rates rise. Given that we do not expect interest rates to rise substantially, the forward-looking investment opportunity in bank loans is not obvious relative to opportunities in other fixed income asset classes.

Conclusion
As an asset class, we believe bank loans are likely to outperform most other fixed income asset classes that have duration risk in a rising interest rate environment. That potential outperformance will likely be somewhat muted in the early phases of the environment, due to LIBOR floors.

As with other tactical or strategic allocations, the attractiveness of bank loans should be assessed against the investor’s overall objectives. Total-return investors who are particularly concerned with interest rate risk – investors such as endowments, foundations and public funds – may consider that a partial reallocation from interest rate–sensitive bonds to bank loans may provide some protection. Defined benefit plans are less likely to find bank loans attractive, because most plans we are aware of still remain in a short-duration position versus liabilities – thus, a decision to allocate to near zero-duration securities would increase, not decrease, the volatility of such plans’ funded status.

SOURCES
The LSTA: http://www.lsta.org/content.aspx?id=198
For more information:
Call Russell at 800-426-8506 or
visit www.russell.com/institutional

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